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ABSTRACT

A summary of the Elementary and Secondary Education Act Title I projects operated in the Bureau of Indian Affairs (BIA), Phoenix Area, during fiscal year 1973 is given in this evaluation report on a school by school basis. Data, presented by charts and graphs, cover: the BIA's organization; student enrollment in the Phoenix Area; school expenditures; student participation by component and school; professional and paraprofessional staff; parent council involvement; and student achievement in reading, language, mathematics, special education, and physical education. The data in this report show that, except for a few isolated grades in some schools, projects were very successful during 1973. Students in every grade gained at or above the national average in reading and language and, with the exception of students in grades 3 and 11, also in mathematics. The following recommendations are made: (1) schools showing low gains in reading and mathematics should critically evaluate their programs to see what is hindering their students and (2) projects which are demonstrating consistent gains in every grade should attempt to have the regular program institute the activities throughout the school. (NQ)

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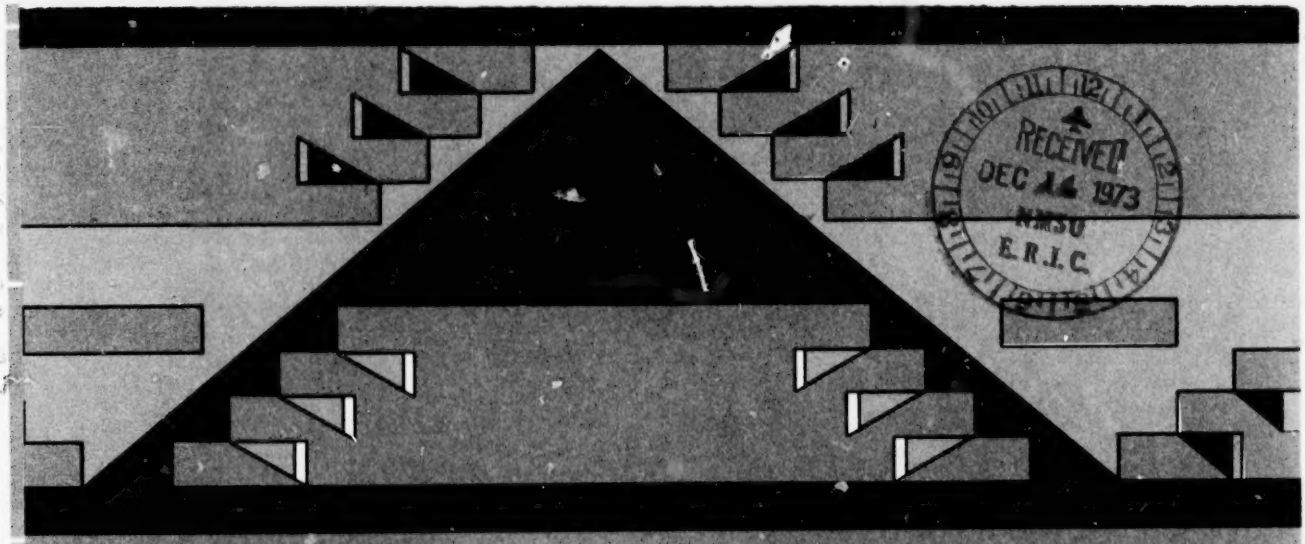

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# FINAL EVALUATION REPORT

# phoenix area

## BUREAU OF INDIAN AFFAIRS

## DEPARTMENT OF THE INTERIOR

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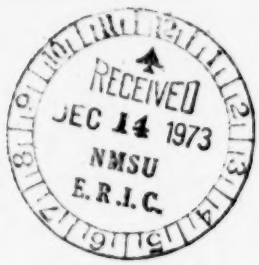


# REPORT OF FINAL EVALUATION
# ESEA TITLE I PROJECTS
# FISCAL YEAR 1973

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS, EDUCATION

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AUGUST 1973

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First to the teachers whose diligence and perseverance made the difference between the spectacular results reported here and the mediocre results that could have occurred. Secondly, to the Title I Coordinators, School, and Agency Administrators whose logistical work and cooperation were invaluable. Appreciation is extended to the Parent Advisory Councils for their concern, input, and support in the planning and operation of all local school projects.

Special thanks are due to Richard Schwartz, Steve Anderson, David Moers, and Theresa Serapiglia for providing technical assistance and support from the area office level to the schools.

Finally, I am deeply indebted to Frances Makil for the cover design and to Mr. Winton Coles of Phoenix Indian School who voluntarily worked overtime to provide the art work for the various charts.

Harriet B. Hilburn
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## INTRODUCTION

This Evaluation report addresses itself to a summary of projects operated in the Bureau of Indian Affairs, Phoenix Area, during Fiscal 1973. The format of the present report is a break from the traditional Phoenix area report in that the long narrative has been replaced with a more manageable and readable presentation of charts and graphs.

Additionally, this year the Phoenix Area is presenting two evaluation reports. One, for general distribution, is a composite summary of the data into an area-wide report. The second is an individual school report that presents the data on a school by school basis. The school report is primarily meant for distribution to the 22 Phoenix Area Schools; however, anyone who wants a copy of the report may have one.

For further information relative to the *evaluation reports* of the Title I programs please contact:

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## OVERVIEW AND ORGANIZATION OF THE BUREAU OF INDIAN AFFAIRS

At the time of printing of this report, the Bureau of Indian Affairs was considering several reorganization plans, each of which would change the alignment and functions of the different administrative levels. However the basic organizational flow from the Commissioner to the field Area Offices, agency, and school levels appears not to change from previous years. (See figure 1)

The Phoenix Area Office exercises jurisdiction over Bureau of Indian Affairs schools in a three state region. Figure 2 shows the geographical location of schools in the Phoenix Area. The twenty-one schools are situated in a three-state region comprised of Arizona, California and Nevada. With the exception of two off-reservation high schools, all are located in Arizona. The two exceptions are Sherman Indian High School in Riverside, California and Stewart Indian High School in Stewart, Nevada. Phoenix Indian High School, the Area's third boarding high school, is located in the heart of Phoenix, Arizona.

Located in the White Mountains of eastern Arizona are the John F. Kennedy Day School, Cibecue Day School, and Theodore Roosevelt Boarding School. To the north, approximately 180 miles are the Hopi mesas and the six schools which serve the Hopi children. A mule trip is necessary to reach the Havasupai village, where the Supai Day School is located near the Grand Canyon. Farther south near the Mexico-Arizona border in the Sonoran Desert, is the Santa Rosa Boarding School and three small day schools on the Papago Reservation. Approximately 30 miles south of Phoenix on the Gila River Reservation are the two Pima Bureau day schools, one small tribal operated school and one mission school. Also, located near metropolitan Phoenix is the Salt River Reservation which contains one day school.

**Figure 1**
**Organization-Bureau of Indian Affairs**

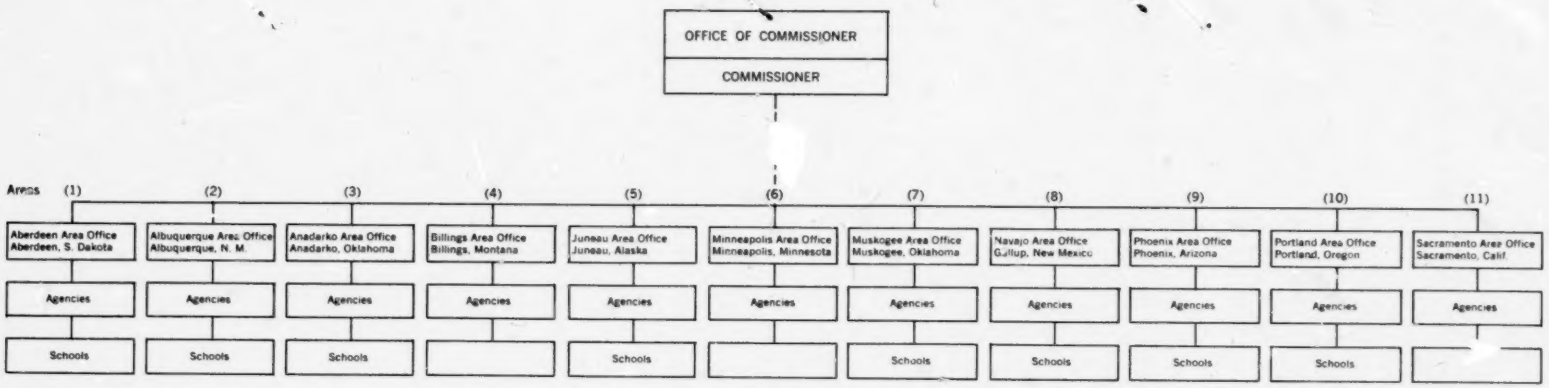
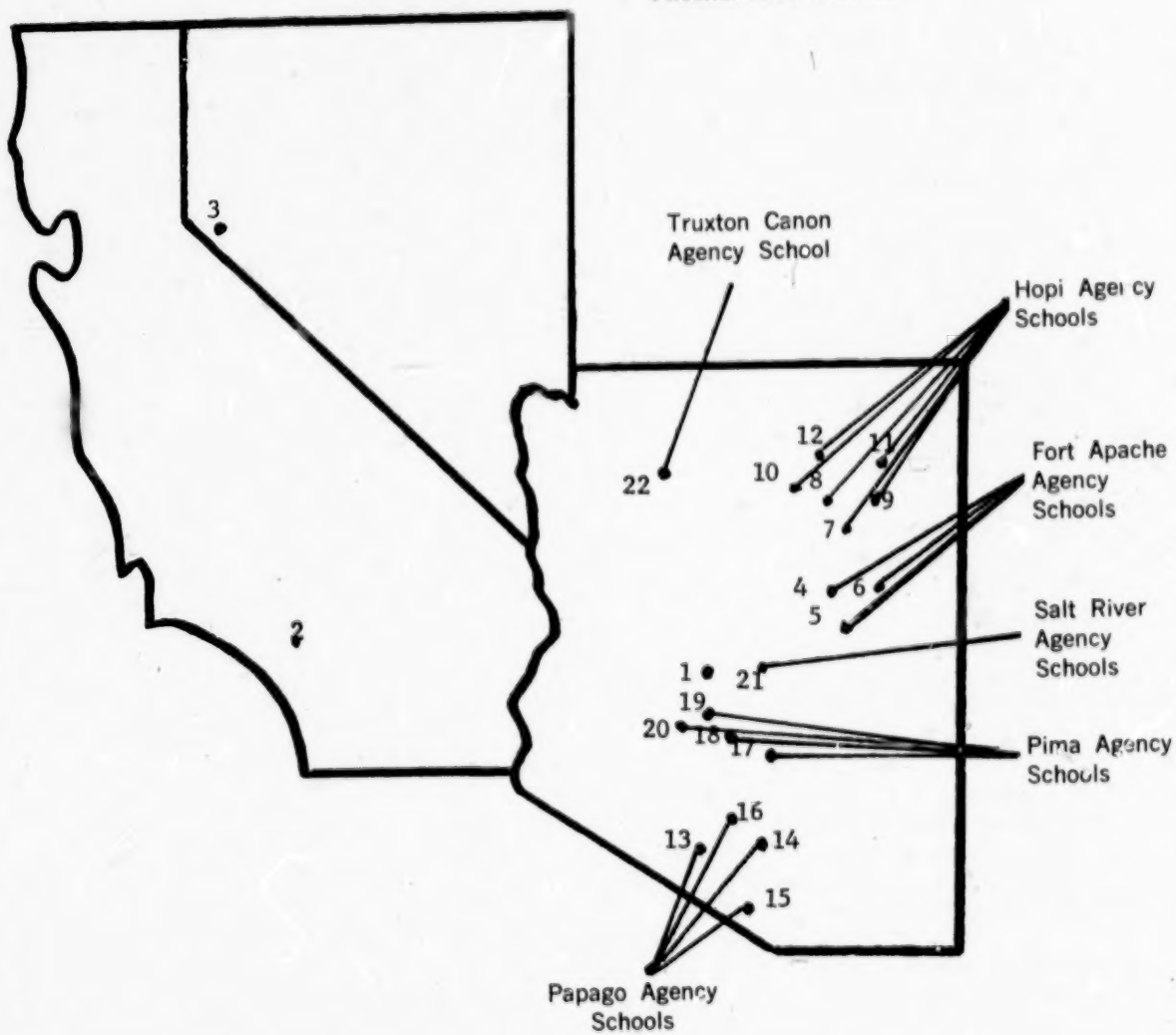


**Figure 2**
**Phoenix Area Schools**




1. Phoenix Indian High School
2. Sherman Indian High School
3. Stewart Indian High School
4. Cibecue Day School
5. John F. Kennedy Day School
6. Theodore Roosevelt Boarding School
7. Hopi Day School
8. Hotevilla Day School
9. Keams Canyon Boarding School
10. Moencopi Day School
11. Polacca Day School
12. Second Mesa Day School
13. Kerwo Day School
14. Santa Rosa Boarding School
15. Santa Rosa Ranch Day School
16. Vaya Chin Day School
17. Blackwater Demonstration School
18. Casa Blanca Day School
19. Gila Crossing Day School
20. St. John's Mission School
21. Salt River Day School
22. Supai Day School

Table 1

Enrollment in the Phoenix Area Schools by Agency and School for School Year 1972-73

| Agency & School | Grades Served | Number of Students |
|---|---|---|
| **Elementary Schools** | | |
| **Fort Apache Agency** | | |
| Cibecue Day School | K-8 | 288 |
| Theodore Roosevelt Brdg. | K-5 | 104 |
| John F. Kennedy Day | 2-8 | 213 |
| **Hopi Agency** | | |
| Hopi Day School | 1-8 | 147 |
| Hotevilla Day School | 1-6 | 103 |
| Keams Canyon Brdg./Day | B-8 | 279 |
| Moencopi Day School | 1-4 | 59 |
| Polacca Day School | K-6 | 193 |
| Second Mesa Day School | K-6 | 276 |
| **Papago Agency** | | |
| Kerwo Day School | B-8 | 50 |
| Santa Rosa Boarding/Day | B-8 | 390 |
| Santa Rosa Ranch Day | B-7 | 19 |
| Vaya Chin Day School | B-4 | 74 |
| **Pima Agency** | | |
| Blackwater Demonstration* | K-1 | 52 |
| Casa Blanca Day School | K-4 | 139 |
| Gila Crossing Day School | K-5 | 114 |
| St. John's Indian School** | 1-12 | 210 |
| **Salt River Agency** | | |
| Salt River Day School | K-7 | 285 |
| **Truxton Canon Agency** | | |
| Supai Day School | B-4 | 42 |
| **High Schools*** ** | | |
| Phoenix Indian High School | 7-12 | 726 |
| Sherman Indian High School | 9-12 | 699 |
| Stewart Indian High School | 8-12 | 490 |

* = Contracted to Community
** = Catholic Mission School
*** = Off-Reservation Schools

## Table 2
## Expenditures/School

| | Instructional Components | | | | | Supportive Components | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Reading | Language | Math | Special Education | Total Academic | Physical Education | Administration Dissemination | Parent Council Cost | Totals |
| Polacca Day School | 20,947 | | 11,851 | | | | 50* | 411 | 33,259 |
| Keams Canyon Brdg. Sch. | 37,265 | | 21,569 | | | 22,012 | *22,563 | 79 | 103,488 |
| Moencopi Day School | 23,241 | | | | | | | 79 | 23,320 |
| Second Mesa Day Sch. | 47,450 | | | | | | | 381 | 47,831 |
| Hotevilla Day School | 21,938 | | | | | | | 79 | 22,017 |
| Hopi Day School | 31,799 | | | | | | | 59 | 31,858 |
| Cibecue Day School | 35,594 | 31,122 | | | | | 2,626 | | 69,342 |
| Theodore Roosevelt Boarding School | 49,307 | | 10,470 | | | | 2,566 | 2,850 | 65,193 |
| John F. Kennedy Day Sch. | 37,428 | | | | | | 1,255 | 600 | 39,283 |
| Kerwo Day School | | | | | | | | | |
| Santa Rosa Brdg. School | **104,492 | | **28,236 | **27,354 | | | | | |
| Santa Rosa Ranch Sch. | | | | | | | **22,203 | | **182,285 |
| Vaya Chin Day School | | | | | | | | | |
| Blackwater Day School | | | | | | | | | |
| Casa Blanca Day School | ***153,943 | | ***27,758 | ***15,674 | | | ***23,649 | ***404 | ***221,428 |
| Gila Crossing Day School | | | | | | | | | |
| St. John's Indian School | | | | | | | | | |
| Salt River Day School | 53,480 | | | | | 22,270 | | | 75,750 |
| Supai Day School | 24,055 | | | | | | | 600 | 24,655 |
| Phoenix Indian School | | | | | 193,244 | | 21,924 | 2,000 | 217,168 |
| Sherman Indian School | 23,243 | | 50,445 | | | 11,756 | 6,104 | 4,800 | 96,348 |
| Stewart Indian School | 65,899 | | | | | | 7,845 | 4,100 | 77,844 |
| Phoenix Area Office | | | | | | | 120,970 | | 120,970 |
| Hopi Follow Through | | | | | 42,570 | | | | 42,570 |
| Total | $730,081 | $31,122 | $150,329 | $43,028 | $235,814 | $56,038 | $231,755 | $16,442 | $1,494,609 |

*This administration cost served all 6 Hopi Schools
**Agency Project served all 4 Papago Agency Schools
***Agency Project served all 4 Pima Agency Schools

## Table 3
## Student Participation by Component and School

| | Reading | | Language | | Mathematics | | Special Education | | Physical Education | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Grades | No. of Students | Grades | No. of Students | Grades | No. of Students | Grades | No. of Students | Grades | No. of Students |
| Keams Canyon Brdg. Sch. | 1-7 | 130 | | | 6-8 | 68 | | | B-3 | 37 |
| Moencopi Day School | 1-4 | 27 | | | | | | | | |
| Hopi Day School | 4-8 | 95 | | | | | | | | |
| Hotevilla Day School | 1-6 | 42 | | | | | | | | |
| Second Mesa Day School | 4-6 | 40 | | | | | | | | |
| Polacca Day School | 4-6 | 70 | | | 4-6 | 41 | | | | |
| Cibecue Day School | 4-8 | 64 | K-3 | 60 | | | | | | |
| John F. Kennedy Day Sch. | 1-7 | 61 | | | | | | | | |
| Theodore Roosevelt Sch. | 4-9 | 185 | | | | | | | | |
| Salt River Day School | 2-7 | 90 | | | | | | | | |
| Supai Day School | 1-4 | 43 | | | | | | | | |
| Phoenix Indian High Sch. | 7-9 | 200 | 7-9 | 200 | 7-9 | 200 | 7-9 | 30 | | |
| Sherman Indian High Sch. | 9-12 | 200 | | | 9-12 | 100 | | | 9-12 | 90 |
| Stewart Indian High Sch. | 9-12 | 163 | | | | | | | | |
| St. John's High School | 8-11 | 156 | | | | | | | | |
| St. John's Elementary | 1-7 | 54 | | | 1-7 | 64 | | | | |
| Blackwater School | 1 | 11 | | | | | | | | |
| Casa Blanca Day School | 1-4 | 35 | | | 1-4 | 32 | K-4 | 25 | | |
| Gila Crossing Day School | 1-5 | 45 | | | 1-5 | 38 | | | | |
| Vaya Chin Day School | B-4 | 70 | | | 4-5 | 39 | | | | |
| Kerwo Day School | B-5 | 48 | | | 3-4 | 12 | | | | |
| Santa Rosa Ranch Day Sch. | B-6 | 22 | | | | | | | | |
| Santa Rosa Boarding Sch. | B-8 | 202 | | | 5-8 | 89 | | | | |

**Table 4**
**Number of Professional and Para-Professional Staff for the Reading Components**

| School | Professional | | Para-Professional | |
|---|---|---|---|---|
| | Regular Program | Title 1 | Regular Program | Title 1 |
| Blackwater School | 1 teacher | 1 teacher | | 1 aide |
| Casa Blanca Day School | | 2 teachers | | 1 aide |
| Cibecue Day School | | 2 teachers | | 4 aides |
| Gila Crossing Day School | | 2 teachers | | 1 aide |
| Hopi Day School | 5 teachers | | | 3 aides |
| Hotevilla Day School | | 1 teacher | | 1 aide |
| John F. Kennedy Day Sch. | | 2 teachers | | 3 aides |
| Keams Canyon Brdg. Sch. | | 1 teacher<br>1 specialist | | 2 aides |
| Kerwo Day School | 2 teachers | | | 2 aides |
| Moencopi Day School | | 1 teacher | | 1 aide |
| Phoenix Indian High Sch. | 3 teachers | 1 teacher<br>1 specialist | | 11 aides |
| Polacca Day School | 1 teacher | | | 2 aides |
| St. John's Elementary | | 2 teachers<br>1 counselor | | 1 aide |
| St. John's High School | | 2 teachers<br>1 counselor | | 2 aides |
| Salt River Day School | | 1 teacher<br>1 counselor | | 4 aides |
| Santa Rosa Brdg. Sch. | 5 teachers | 1 teacher | | 7 aides |
| Santa Rosa Ranch Sch. | 1 teacher | | | 1 aide |
| Second Mesa Day Sch. | | 3 teachers | | 1 aide |
| Sherman Indian High Sch. | 2 teachers | | 2 aides | |
| Stewart Indian High Sch. | | 3 teachers | | 3 aides |
| Supai Day School | 2 teachers | 1 teacher | | 1 aide |
| Theodore Roosevelt | 1 teacher | 2 teachers | | 3 aides |
| Vaya Chin Day School | 3 teachers | | | 3 aides |

**Table 5**
**Number of Professional and Para-Professional Staff for the Oral Language Components**

| School | Professional | | Para-Professional | |
|---|---|---|---|---|
| | Regular Program | Title 1 | Regular Program | Title 1 |
| Blackwater School | | | | |
| Casa Blanca Day School | | | | |
| Cibecue Day School | 3 teachers | | | 3 aides |
| Gila Crossing Day School | | | | |
| Hopi Day School | | | | |
| Hotevilla Day School | | | | |
| John F. Kennedy Day Sch. | | | | |
| Keams Canyon Brdg. Sch. | | | | |
| Kerwo Day School | | | | |
| Moencopi Day School | | | | |
| Phoenix Indian High Sch. | | | | |
| Polacca Day School | | | | |
| St. John's Elementary | | | | |
| St. John's High School | | | | |
| Salt River Day School | | | | |
| Santa Rosa Brdg. Sch. | | | | |
| Santa Rosa Ranch Sch. | | | | |
| Second Mesa Day Sch. | | | | |
| Sherman Indian High Sch. | | | | |
| Stewart Indian High Sch. | | | | |
| Supai Day School | | | | |
| Theodore Roosevelt | | | | |
| Vaya Chin Day School | | | | |

**Table 6**
**Number of Professional and Para-Professional Staff for the Math Components**

| School | Professional | | Para-Professional | |
|---|---|---|---|---|
| | Regular Program | Title 1 | Regular Program | Title |
| Blackwater School | | | | |
| Casa Blanca Day School | | 1 teacher | | 1 aide |
| Cibecue Day School | | | | |
| Gila Crossing Day School | | 1 teacher | | 1 aide |
| Hopi Day School | | | | |
| Hotevilla Day School | | | | |
| John F. Kennedy Day Sch. | | | | |
| Keams Canyon Brdg. Sch. | 1 teacher | | | 1 aide |
| Kerwo Day School | | 1 teacher | | 1 aide |
| Moencopi Day School | | | | |
| Phoenix Indian High Sch. | 2 teachers | | | 11 aides |
| Polacca Day School | | | | |
| St. John's Elementary | | 1 teacher | | 1 aide |
| St. John's High School | | | | |
| Salt River Day School | | | | |
| Santa Rosa Brdg. Sch. | | | | |
| Santa Rosa Ranch Sch. | | | | |
| Second Mesa Day Sch. | | | | |
| Sherman Indian High Sch. | | 1 teacher | | 1 aide |
| Stewart Indian High Sch. | | | | |
| Supai Day School | | | | |
| Theodore Roosevelt | | | | 1 aide |
| Vaya Chin Day School | | 1 teacher | | 1 aide |

**Table 7**
**Number of Professional and Para-Professional Staff for the Special Education Components**

| School | Professional | | Para-Professional | |
|---|---|---|---|---|
| | Regular Program | Title 1 | Regular Program | Title 1 |
| Blackwater School | | | | |
| Casa Blanca Day School | | 1 teacher | | 1 aide |
| Cibecue Day School | | | | |
| Gila Crossing Day School | | | | |
| Hopi Day School | | | | |
| Hotevilla Day School | | | | |
| John F. Kennedy Day Sch. | | | | |
| Keams Canyon Brdg. Sch. | | | | |
| Kerwo Day School | | | | |
| Moencopi Day School | | | | |
| Phoenix Indian High Sch. | | 1 teacher | | |
| Polacca Day School | | | | |
| St. John's Elementary | | | | |
| St. John's High School | | | | |
| Salt River Day School | | | | |
| Santa Rosa Brdg. Sch. | | | | |
| Santa Rosa Ranch Sch. | | 1 teacher | | 1 aide |
| Second Mesa Day Sch. | | | | |
| Sherman Indian High Sch. | | | | |
| Stewart Indian High Sch. | | | | |
| Supai Day School | | | | |
| Theodore Roosevelt | | | | |
| Vaya Chin Day School | | | | |

**Table 8**
**Number of Professional and Para-Professional Staff for the Physical Education Components**

| School | Professional | | Para-Professional | |
|---|---|---|---|---|
| | Regular Program | Title 1 | Regular Program | Title 1 |
| Blackwater School | | | | |
| Casa Blanca Day School | | | | |
| Cibecue Day School | | | | |
| Gila Crossing Day School | | | | |
| Hopi Day School | | | | |
| Hotevilla Day School | | | | |
| John F. Kennedy Day Sch. | | | | |
| Keams Canyon Brdg. Sch. | | 1 teacher | | 2 aides |
| Kerwo Day School | | | | |
| Moencopi Day School | | | | |
| Phoenix Indian High Sch. | | | | |
| Polacca Day School | | | | |
| St. John's Elementary | | | | |
| St. John's High School | | | | |
| Salt River Day School | | 1 teacher | | 2 aides |
| Santa Rosa Brdg. Sch. | | | | |
| Santa Rosa Ranch Sch. | | | | |
| Second Mesa Day Sch. | | | | |
| Sherman Indian High Sch. | 2 teachers | 1 teacher | | |
| Stewart Indian High Sch. | | | | |
| Supai Day School | | | | |
| Theodore Roosevelt | | | | |
| Vaya Chin Day School | | | | |

**Table 9**
**Parent Council Involvement**

| School | Number of Members | Number of Meetings | Average Attendance |
|---|---|---|---|
| Cibecue Day School | 10 | 6 | 4 |
| John F. Kennedy Day School | 5 | 12 | 4 |
| Theodore Roosevelt Brdg. | 7 | 2 | 6 |
| Stewart Indian High School | 11 | 3 | 9.7 |
| Sherman Indian High School | 7 | 4 | 5 |
| Phoenix Indian High School | 16 | 3 | 5 |
| Supai Day School | 15 | 6 | 6 |
| Hotevilla Day School | 2 | 4 | 2 |
| Moencopi Day School | 3 | 9 | 3 |
| Second Mesa Day School | 8 | 8 | 7 |
| Casa Blanca Day School | 65 | 5 | 8 |
| Gila Crossing Day School | 55 | 8 | 10 |
| Blackwater Demonstration | 12 | 8 | 12 |
| St. John's Indian School | 27 | 8 | 6 |
| Vaya Chin Day School | 7 | 4 | 4.5 |
| Kerwo Day School | 6 | 6 | 4 |
| Santa Rosa Ranch Day School | 6 | 2 | 4 |
| Santa Rosa Boarding School | 17 | 4 | 9 |
| Salt River Day School | 12 | 8 | 8 |
| Polacca Day School | 7 | 5 | 7 |
| Keams Canyon Brdg./Day School | 5 | 8 | 3 |
| Hopi Day School | 5 | 8 | 3 |

**Table 10**
**First Grade Reading Results**

| School | N | Post Test |
|---|---|---|
| Keams Canyon Boarding School | 11 | 1.9 |
| Supai Day School | 6 | 2.1 |
| John F. Kennedy Day School | 15 | 1.0 |
| Blackwater School | 3 | 1.5 |

**Figure 4**
**Pre-Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a Second Grade Reading Program**

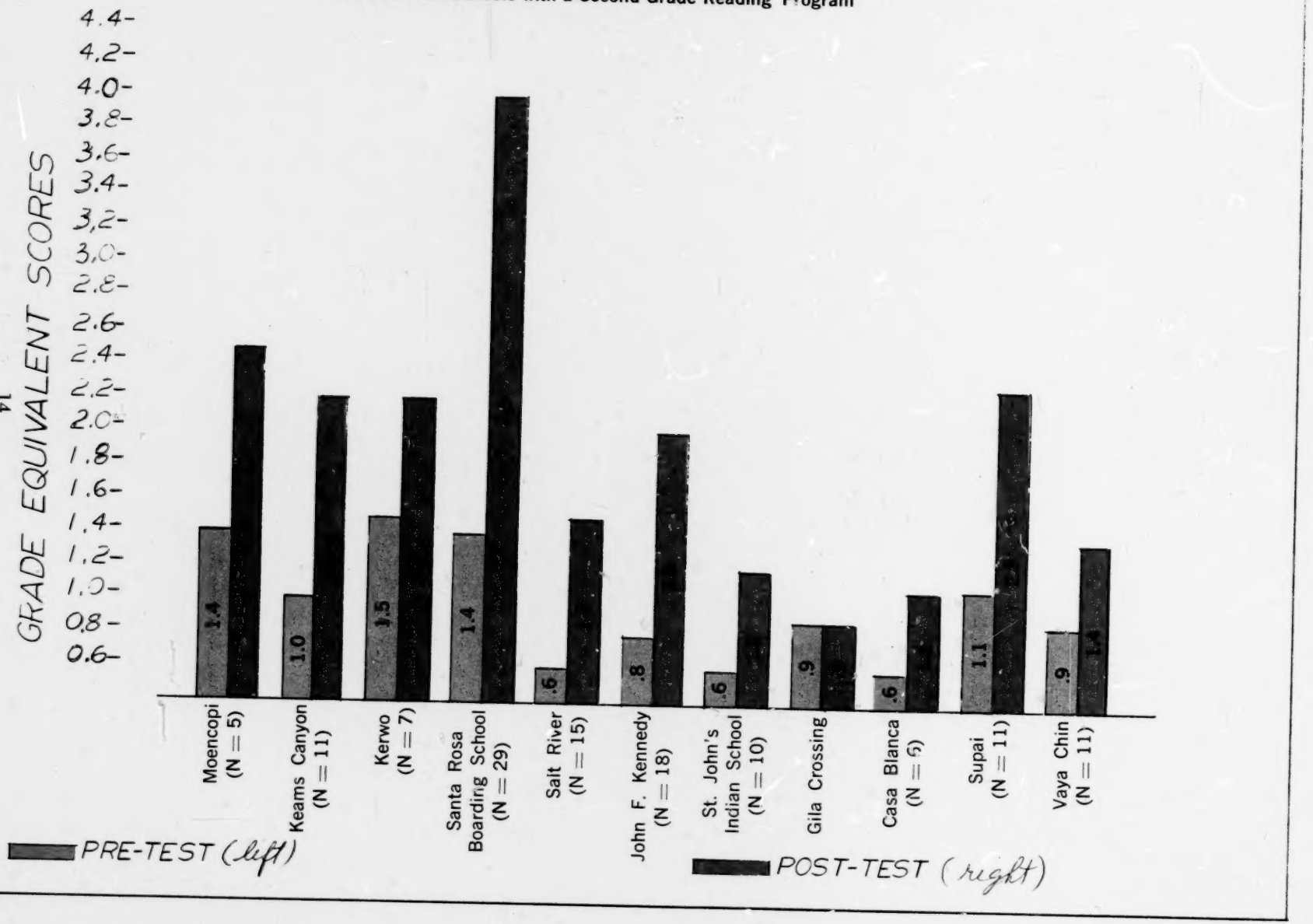


**Table 11**
**2nd Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Moencopi Day School | 1.1 | .7 | + .4 |
| Keams Canyon Boarding Sch. | 1.2 | .5 | + .7 |
| Kerwo Day School | .7 | .8 | - .1 |
| Santa Rosa Boarding School | 2.6 | .7 | +1.9 |
| Salt River Day School | .9 | .3 | + .6 |
| John F. Kennedy Day School | 1.2 | .4 | + .8 |
| St. John's Indian School | .6 | .3 | + .3 |
| Gila Crossing Day School | 0 | .5 | - .5 |
| Casa Blanca Day School | .5 | .3 | + .2 |
| Supai Day School | 1.2 | .6 | + .6 |
| Vaya Chin | .5 | .5 | 0 |

Figure 5

Pre-Post California California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a Third Grade Reading Program

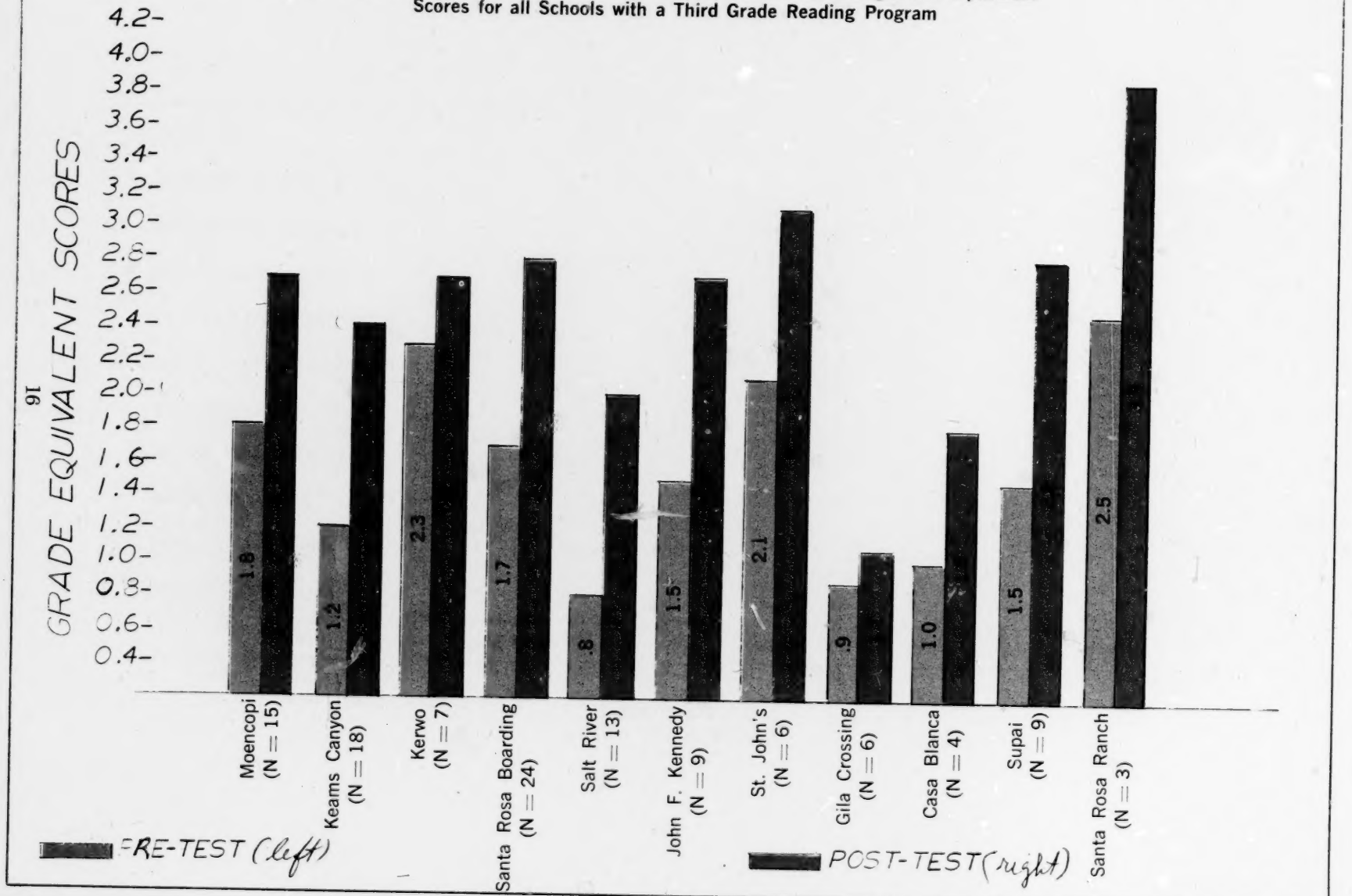


**Table 12**
**3rd Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Moencopi Day School | .9 | .6 | + .3 |
| Keams Canyon Boarding | 1.2 | .4 | + .8 |
| Kerwo Day School | .4 | .8 | - .4 |
| Santa Rosa Boarding | 1.1 | .6 | + .5 |
| Salt River Day School | 1.2 | .3 | + .9 |
| John F. Kennedy Day School | 1.2 | .5 | + .7 |
| St. John's Indian School | 1.0 | .7 | + .3 |
| Gila Crossing Day School | .2 | .3 | - .1 |
| Casa Blanca Day School | .8 | .3 | + .5 |
| Supai Day School | 1.3 | .5 | + .8 |
| Santa Rosa Ranch | 1.4 | .8 | + .6 |

**Figure 6**
**Pre-Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 4th Grade Reading Program**

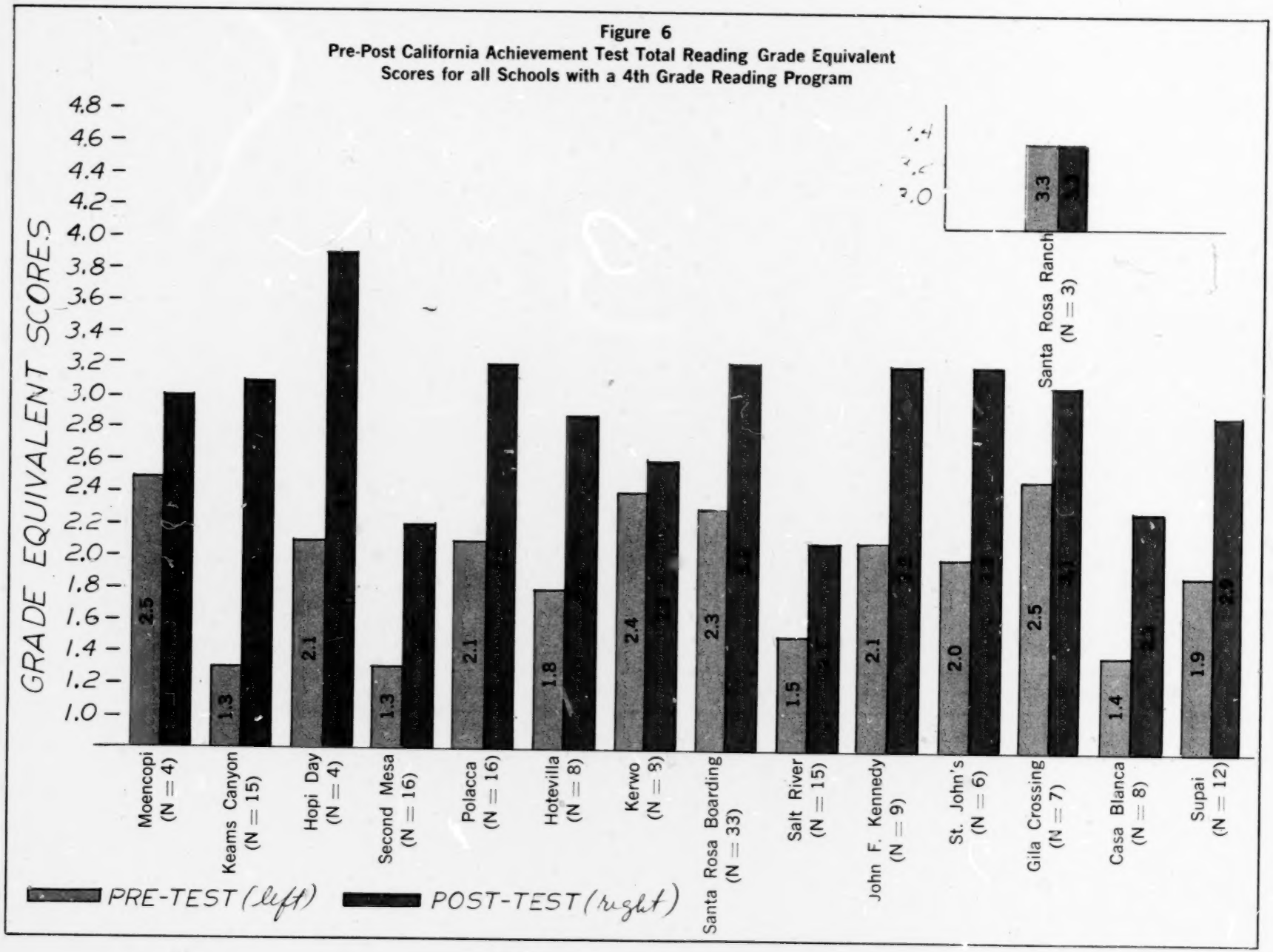


**Table 13**
**4th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Moencopi Day School | .5 | .6 | − .1 |
| Keams Canyon Boarding | 1.8 | .3 | +1.5 |
| Hopi Day School | 1.8 | .5 | +1.3 |
| Second Mesa Day School | .9 | .3 | + .6 |
| Polacca Day School | 1.1 | .5 | + .6 |
| Hotevilla Day School | 1.1 | .5 | + .6 |
| Kerwo Day School | .2 | .6 | − .4 |
| Santa Rosa Boarding | .9 | .6 | + .3 |
| Salt River Day School | .6 | .4 | + .9 |
| John F. Kennedy Day School | 1.1 | .5 | + .6 |
| St. John's Indian School | 1.2 | .5 | + .7 |
| Gila Crossing Day School | .6 | .6 | 0 |
| Casa Blanca Day School | .9 | .4 | + .5 |
| Supai Day School | 1.0 | .5 | + .5 |
| Santa Rosa Ranch | 0 | .8 | − .8 |

**Figure 7**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 5th Grade Reading Program**

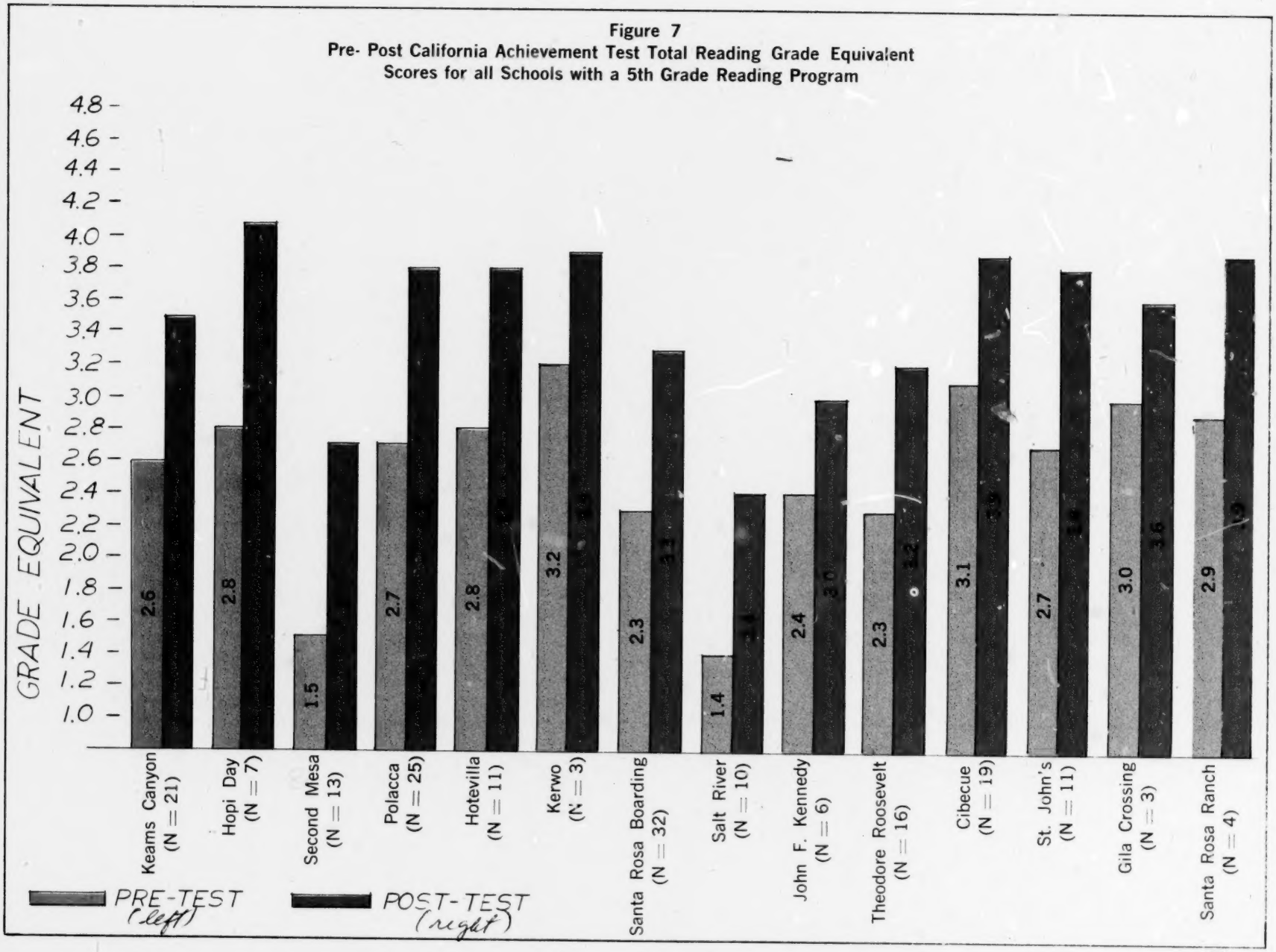


**Table 14**
**5th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding | .9 | .5 | + .4 |
| Hopi Day | 1.3 | .6 | + .7 |
| Second Mesa Day School | 1.2 | .3 | + .9 |
| Polacca Day School | 1.1 | .5 | + .6 |
| Hotevilla Day School | 1.0 | .6 | + .4 |
| Kerwo Day School | .7 | .6 | + .1 |
| Santa Rosa Boarding | 1.0 | .5 | + .5 |
| Salt River Day School | 1.0 | .3 | + .7 |
| John F. Kennedy Day School | .6 | .5 | + .1 |
| Theodore Roosevelt | .9 | .5 | + .4 |
| Cibecue Day School | .8 | .6 | + .2 |
| St. John's Indian School | 1.1 | .5 | + .6 |
| Gila Crossing Day School | .6 | .6 | 0 |
| Santa Rosa Ranch | 1.0 | .6 | + .4 |

**Figure 8**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 6th Grade Reading Program**

**Table 15**
**6th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | .8 | .6 | + .2 |
| Hopi Day School | 1.1 | .7 | + .4 |
| Second Mesa Day School | 1.2 | .5 | + .7 |
| Polacca Day School | 1.2 | .6 | + .6 |
| Hotevilla Day School | 1.4 | .7 | + .7 |
| Santa Rosa Boarding School | 1.2 | .4 | + .8 |
| Salt River Day School | 1.7 | .3 | +1.4 |
| John F. Kennedy Day School | .8 | .3 | + .5 |
| Theodore Roosevelt | .9 | .5 | + .4 |
| Cibecue Day School | .6 | .4 | + .2 |
| St. John's Indian School | .7 | .6 | + .1 |
| Santa Rosa Ranch | .9 | .6 | + .3 |

**Figure 9**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 7th Grade Reading Program**

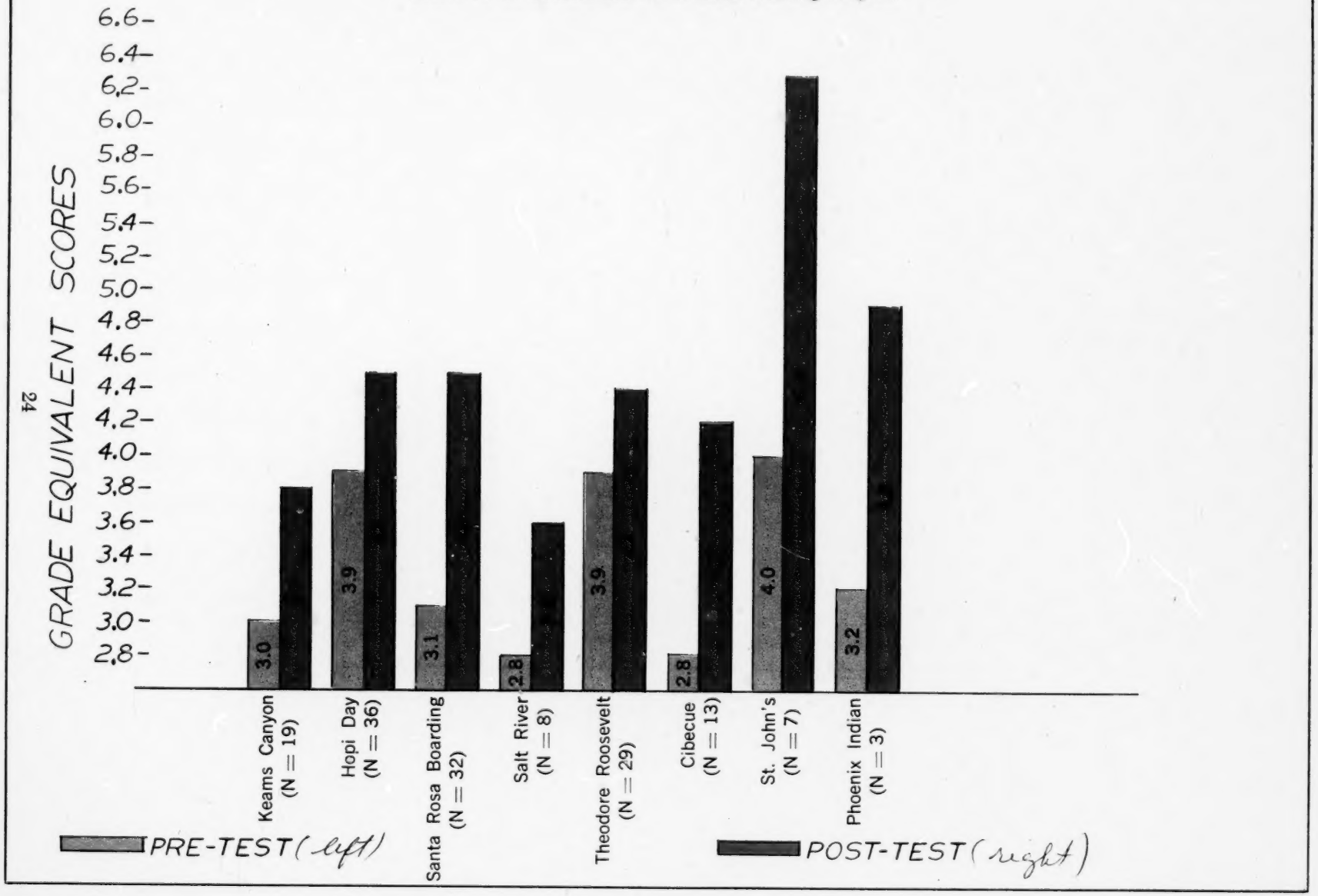


**Table 16**
**7th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | .8 | .5 | + .3 |
| Hopi Day School | .6 | .6 | 0 |
| Santa Rosa Boarding School | 1.4 | .4 | +1.0 |
| Salt River Day School | .8 | .4 | + .4 |
| Theodore Roosevelt | .5 | .6 | - .1 |
| Cibecue Day School | 1.4 | .4 | +1.0 |
| St. John's Indian School | 2.3 | .6 | +1.7 |
| Phoenix Indian School | 1.7 | .5 | +1.2 |

**Figure 10**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 8th Grade Reading Program**

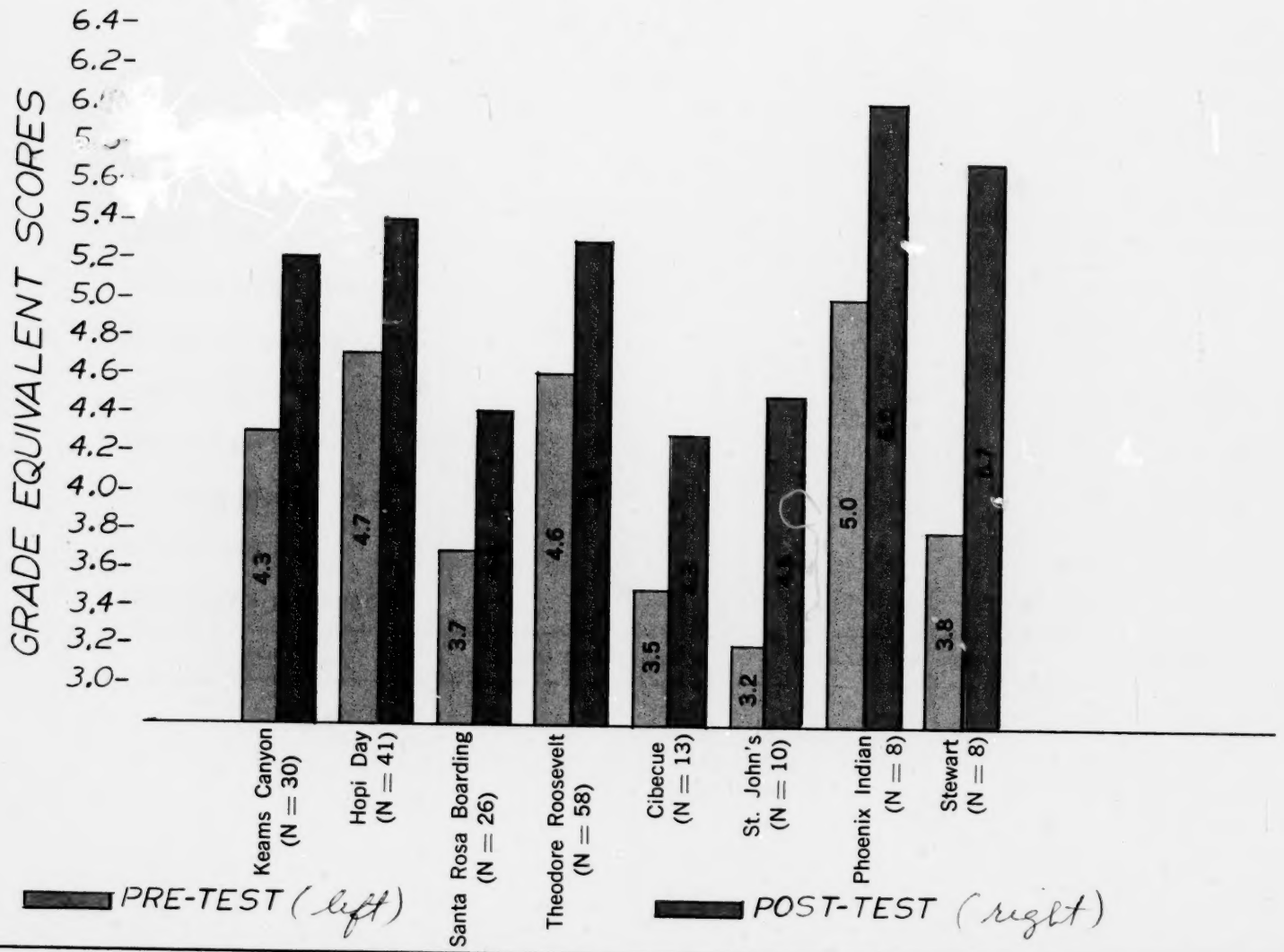


**Table 17**
**8th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | .9 | .5 | + .4 |
| Hopi Day School | .7 | .6 | + .1 |
| Santa Rosa Boarding School | .7 | .5 | + .2 |
| Theodore Roosevelt | .7 | .6 | + .1 |
| Cibecue Day School | .8 | .4 | + .4 |
| St. John's Indian School | 1.3 | .4 | + .9 |
| Phoenix Indian School | 1.0 | .6 | + .4 |
| Stewart Indian School | 1.9 | .5 | +1.4 |

**Figure 11**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 9th Grade Reading Program**

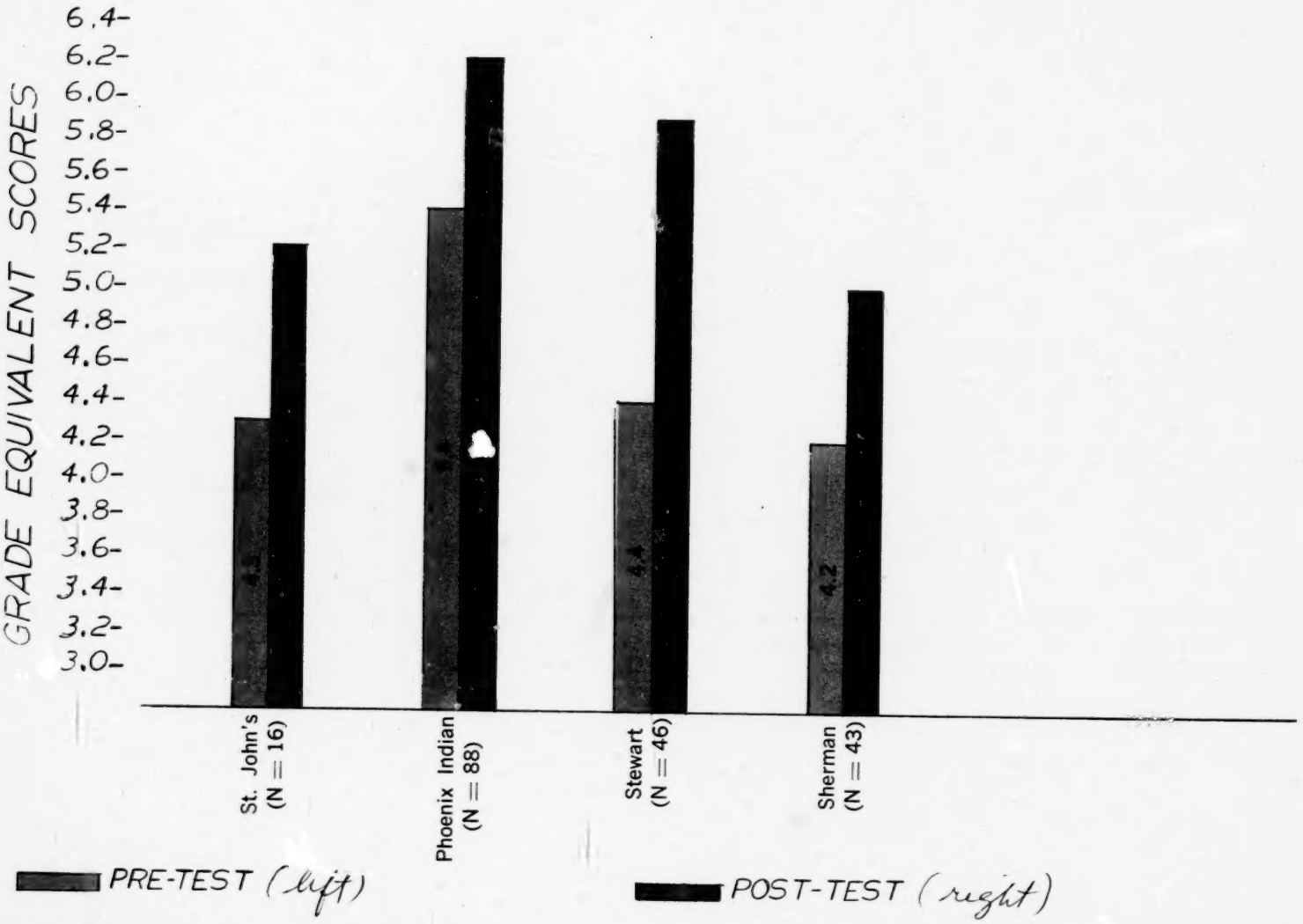


**Table 18**
**9th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | .9 | .5 | + .4 |
| Phoenix Indian School | .8 | .6 | + .2 |
| Stewart Indian School | 1.5 | .5 | +1.0 |
| Sherman Indian School | .8 | .5 | + .3 |

**Figure 12**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 10th Grade Reading Program**

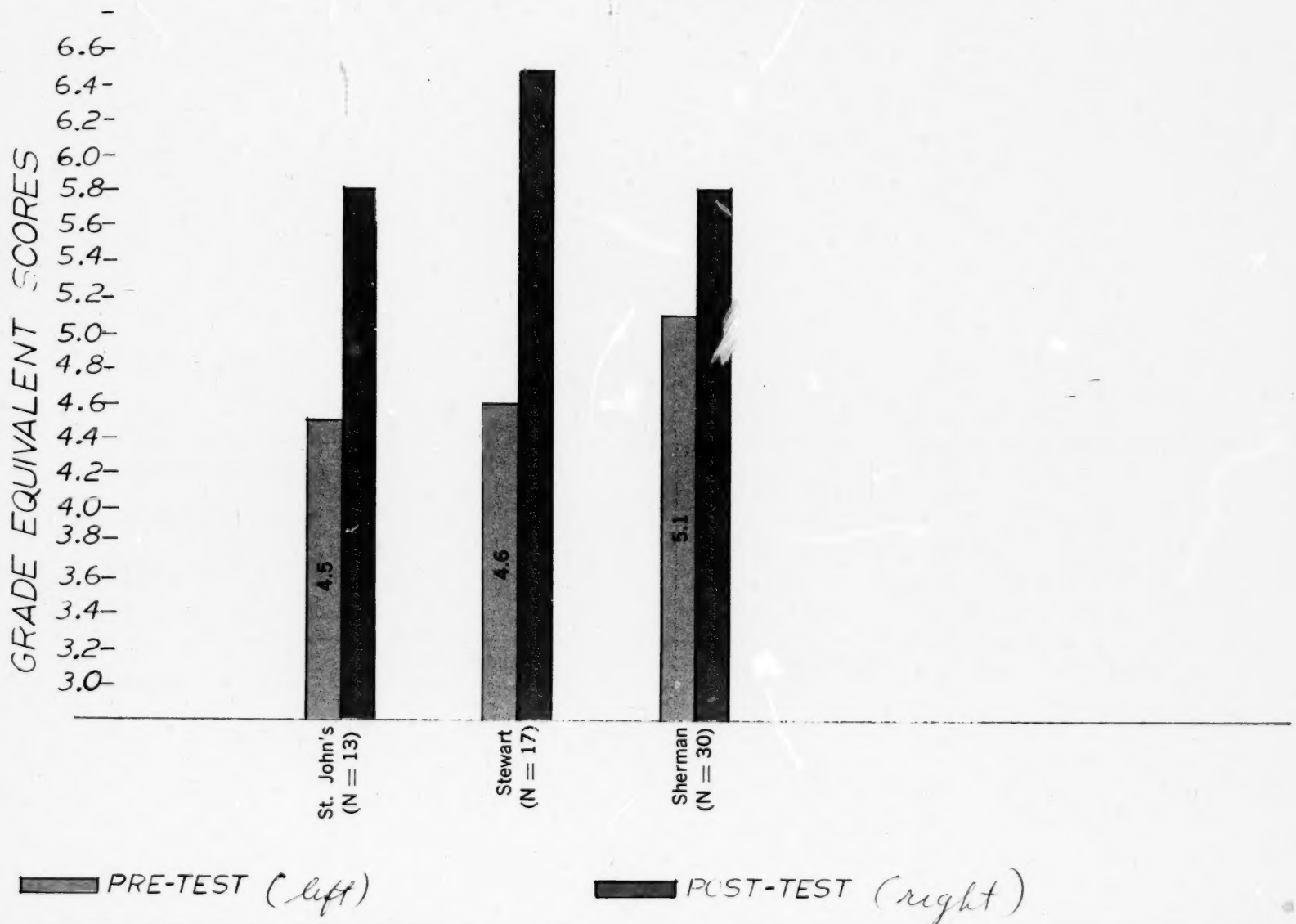


**Table 19**
**10th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | 1.3 | .5 | + .8 |
| Stewart Indian School | 1.9 | .5 | +1.4 |
| Sherman Indian School | .7 | .5 | + .2 |

**Figure 13**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 11th Grade Reading Program**

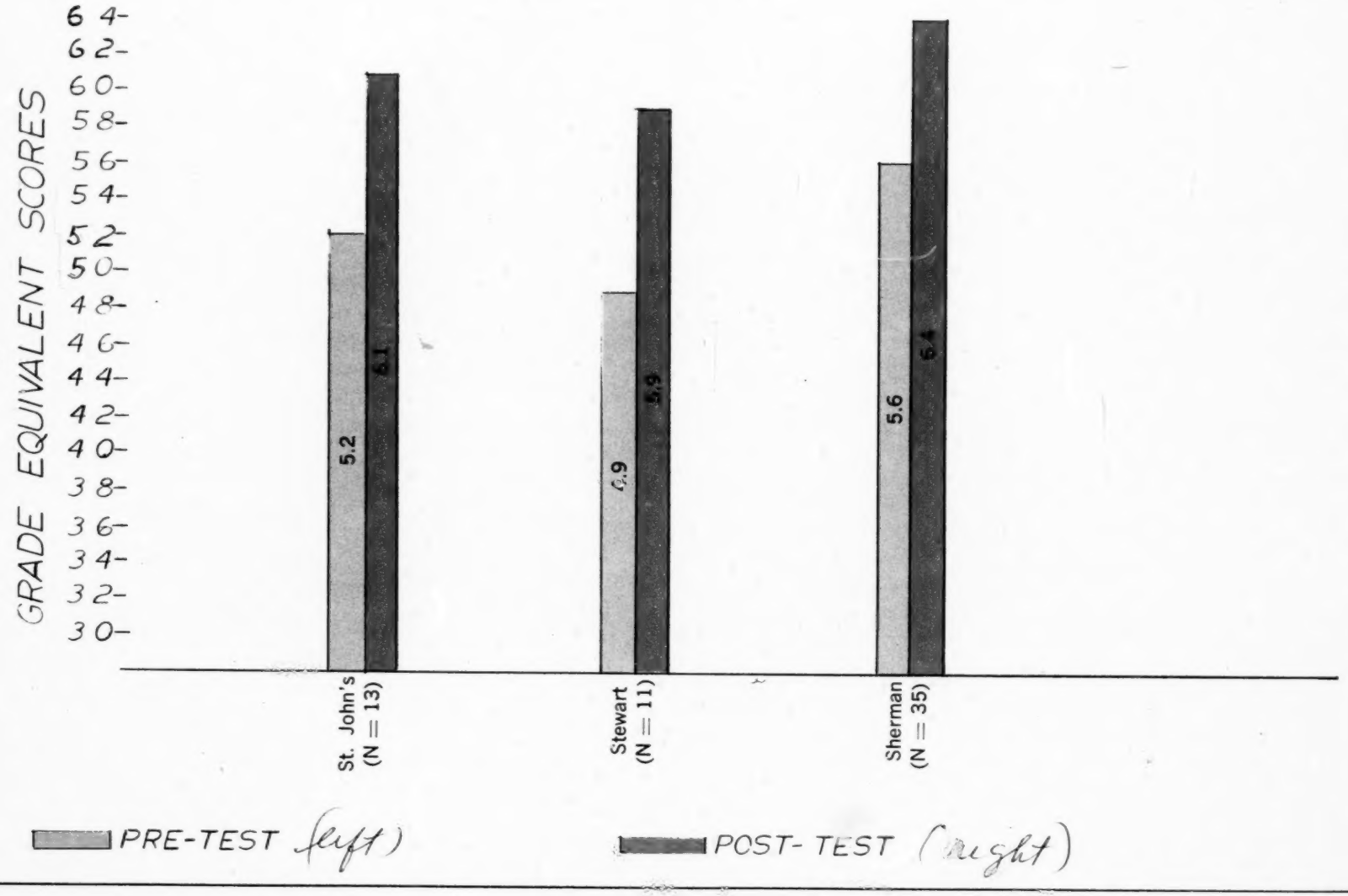


**Table 20**
**11th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | .9 | .5 | + .4 |
| Stewart Indian School | 1.0 | .5 | + .5 |
| Sherman Indian School | .8 | .5 | + .3 |

**Figure 14**
**Pre- Post California Achievement Test Total Reading Grade Equivalent Scores for all Schools with a 12th Grade Reading Program**

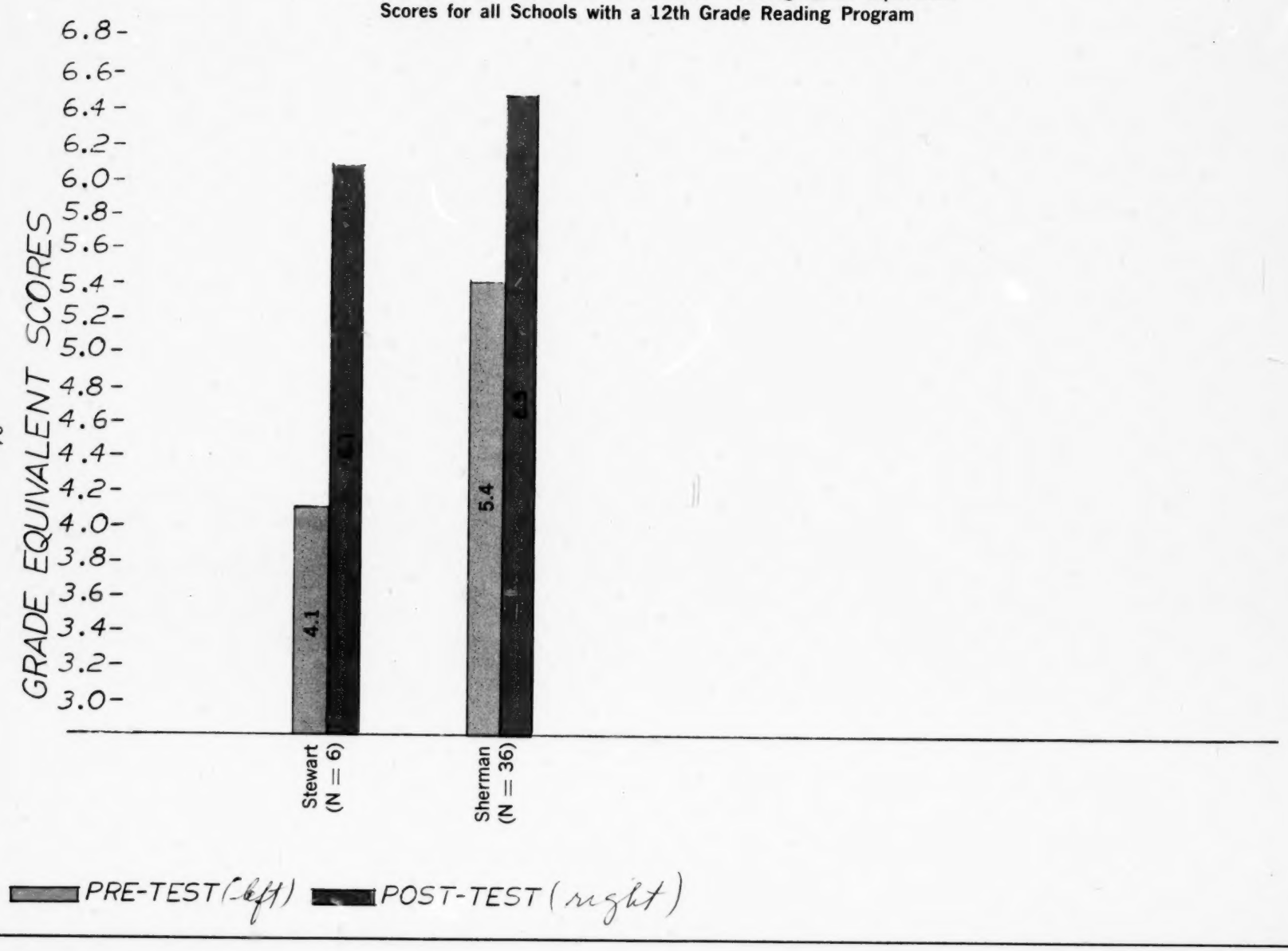


**Table 21**
**12th Grade**
**Reading Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Stewart Indian School | 2.0 | .3 | +1.7 |
| Sherman Indian School | 1.1 | .5 | + .6 |

Table 22

**1st Grade Language results using the Test of Basic English and presented in Stanines.**

| School | N | Pre Test | Post Test | Gain |
|---|---|---|---|---|
| Kerwo | 7 | 3 | 4 | + .1 |
| Vaya Chin | 12 | 2 | 4 | + .2 |
| Santa Rosa Boarding | 23 | 1 | 6 | + .5 |

3/6/87

**Figure 15**
**Pre-Post California Achievement Test Total Language Grade Equivalent Scores for all Schools with a 2nd Grade Language Program**

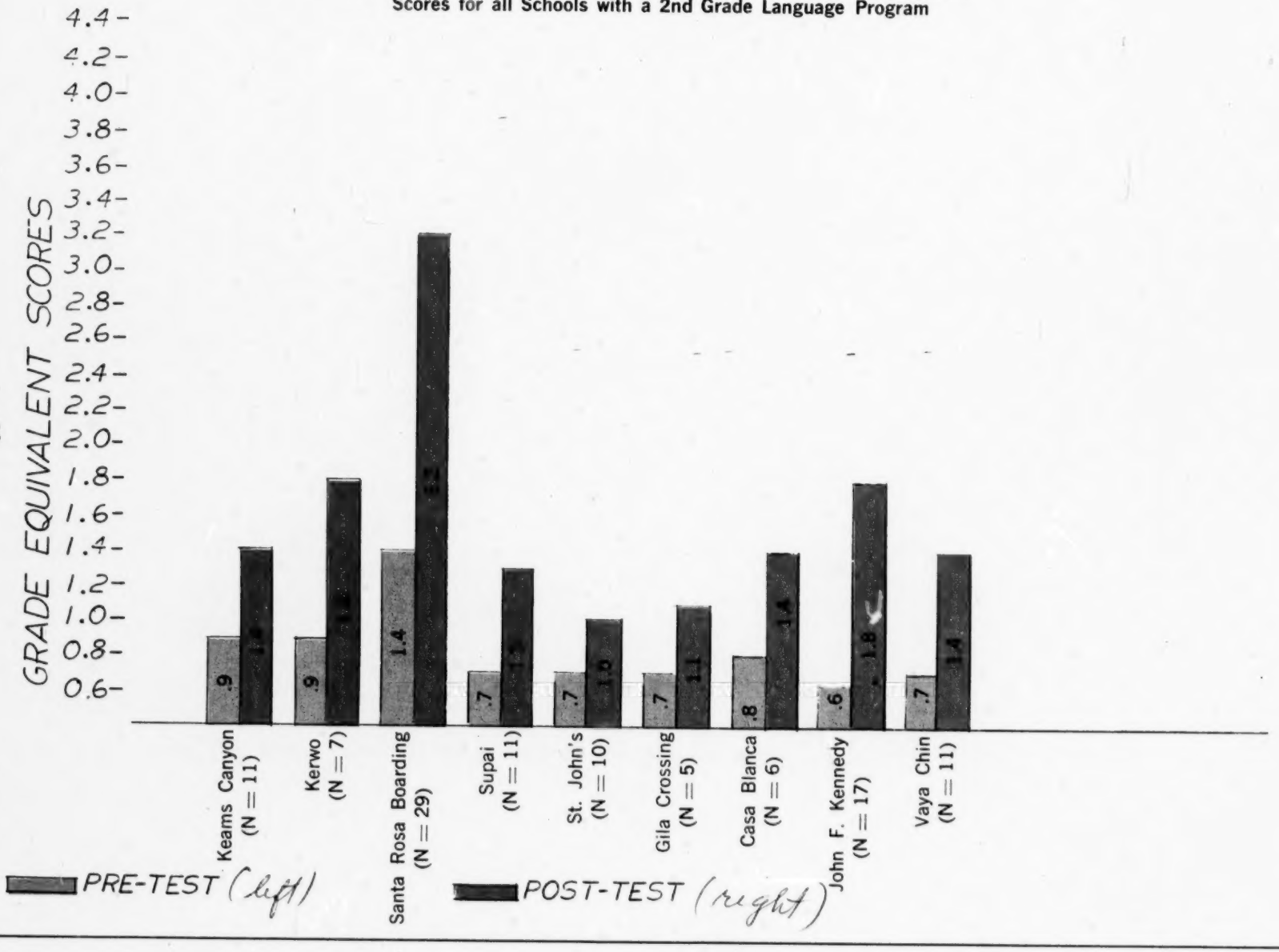


**Table 23**
**2nd Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | .5 | .5 | 0 |
| Kerwo Day School | .9 | .5 | + .4 |
| Santa Rosa Boarding School | 1.8 | .7 | +1.1 |
| Supai Day School | .6 | .4 | + .2 |
| St. John's Indian School | .3 | .4 | - .1 |
| Gila Crossing Day School | .4 | .4 | 0 |
| Casa Blanca Day School | .6 | .4 | + .2 |
| John F. Kennedy Day School | 1.2 | .3 | + .9 |
| Vaya Chin | .7 | .4 | + .3 |

**Figure 16**
**Pre-Post California Achievement Test Total Language Grade Equivalent Scores for all Schools with a 3rd Grade Language Program**

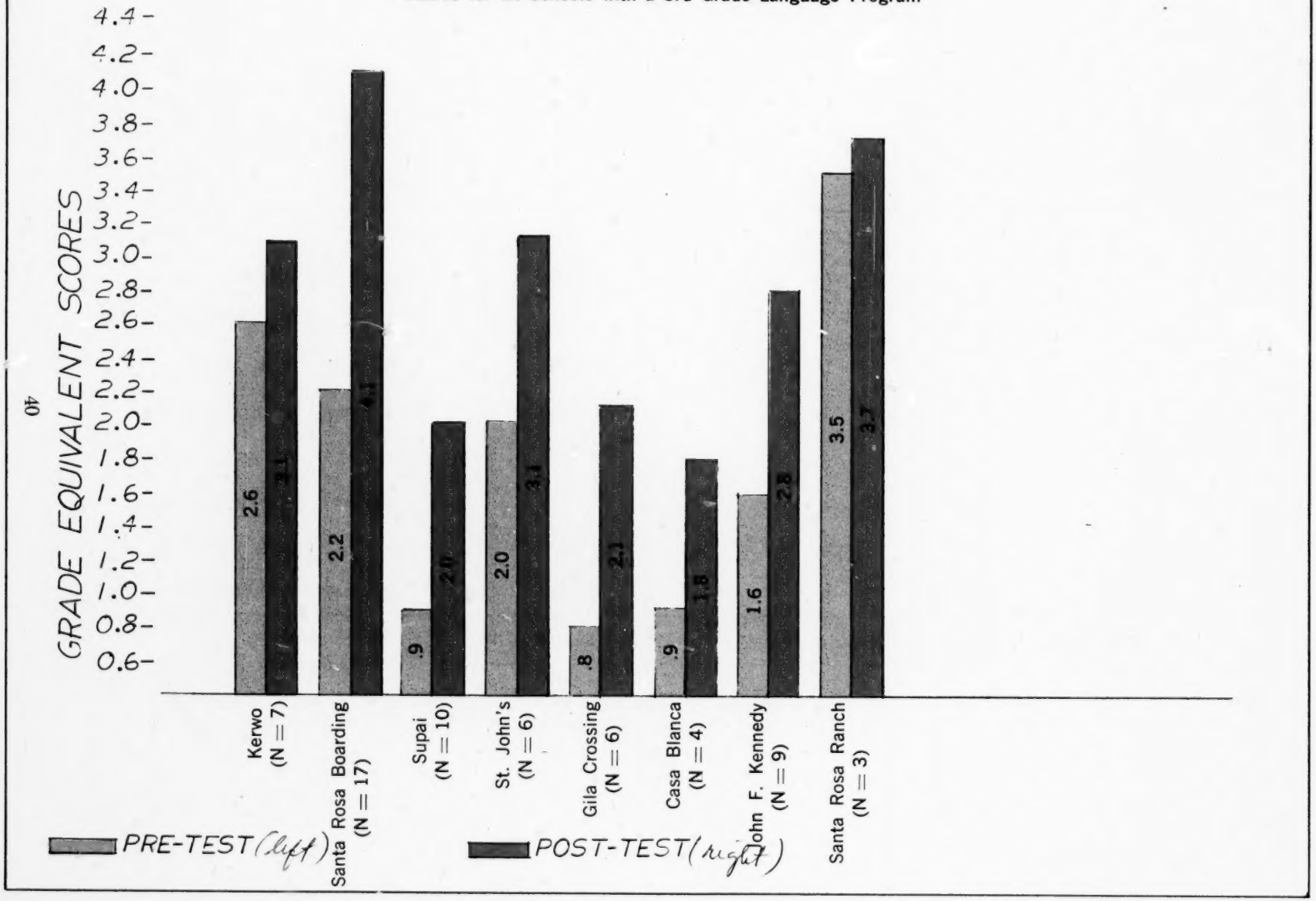


**Table 24**
**3rd Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Kerwo Day School | .5 | .9 | - .4 |
| Santa Rosa Boarding School | 1.9 | .7 | +1.2 |
| Supai Day School | 1.1 | .3 | + .8 |
| St. John's Indian School | 1.1 | .7 | + .4 |
| Gila Crossing Day School | 1.3 | .3 | +1.0 |
| Casa Blanca Day School | .9 | .3 | + .6 |
| John F. Kennedy Day School | 1.2 | .5 | + .7 |
| Santa Rosa Ranch | .2 | 1.2 | -1.0 |

**Figure 17**
**Pre-Post California Achievement Test Total Language Grade Equivalent Scores for all Schools with a 4th Grade Language Program**

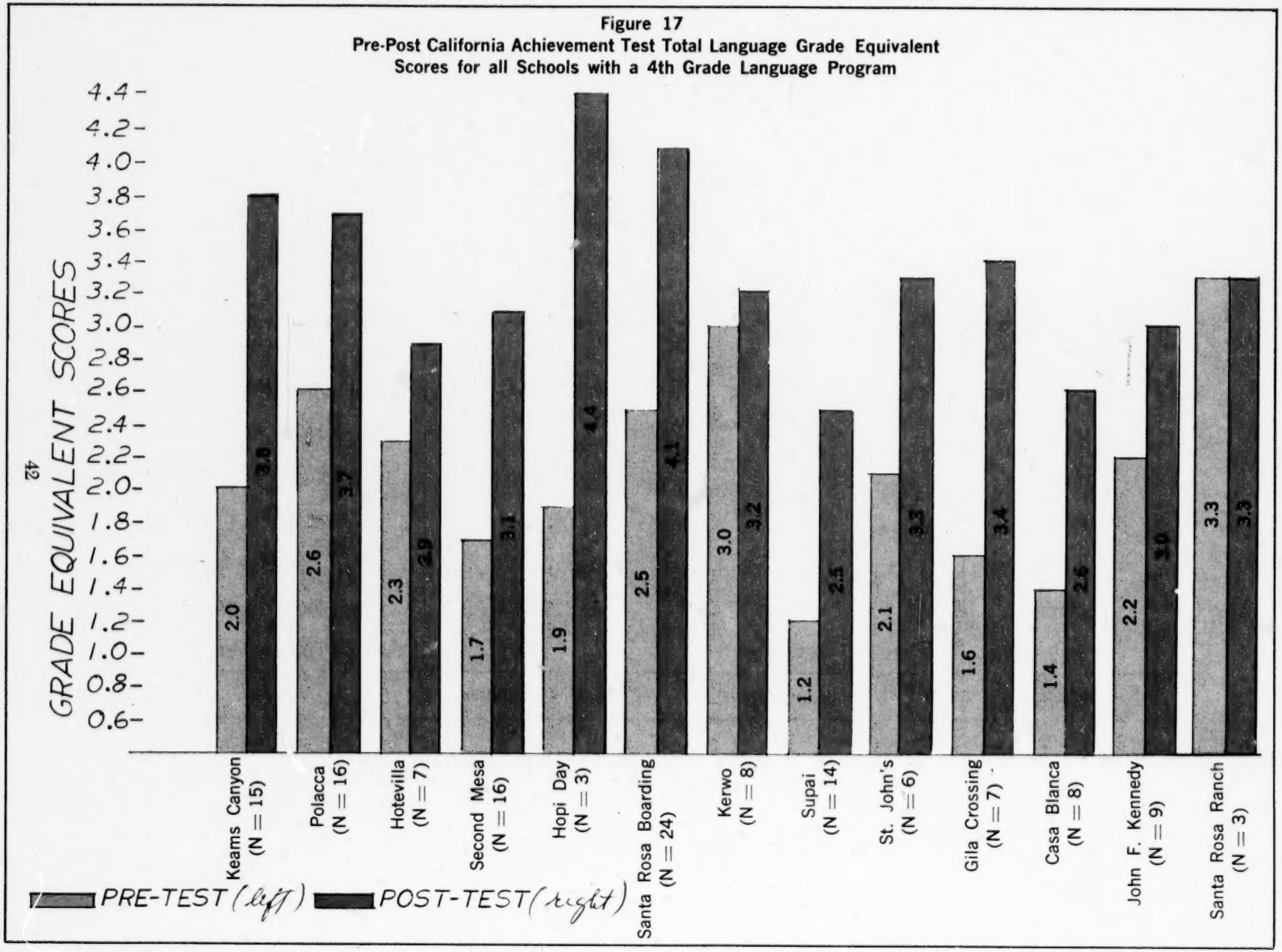


**Table 25**
**4th Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | 1.8 | .5 | +1.3 |
| Polacca Day School | 1.1 | .7 | + .4 |
| Hotevilla Day School | .6 | .6 | 0 |
| Second Mesa Day School | 1.4 | .4 | +1.0 |
| Hopi Day School | .5 | .5 | 0 |
| Santa Rosa Boarding School | 1.6 | .7 | +1.0 |
| Kerwo Day School | .2 | .8 | - .6 |
| Supai Day School | 1.3 | .3 | +1.0 |
| St. John's Indian School | 1.2 | .5 | + .7 |
| Gila Crossing Day School | 1.8 | .4 | +1.4 |
| Casa Blanca Day School | 1.2 | .4 | + .8 |
| John F. Kennedy Day School | .8 | .6 | + .2 |
| Santa Rosa Ranch | 0 | .8 | - .8 |

**Figure 18**
**Pre-Post California Achievement Test Total Language Grade Equivalent Scores for all Schools with a 5th Grade Language Program**

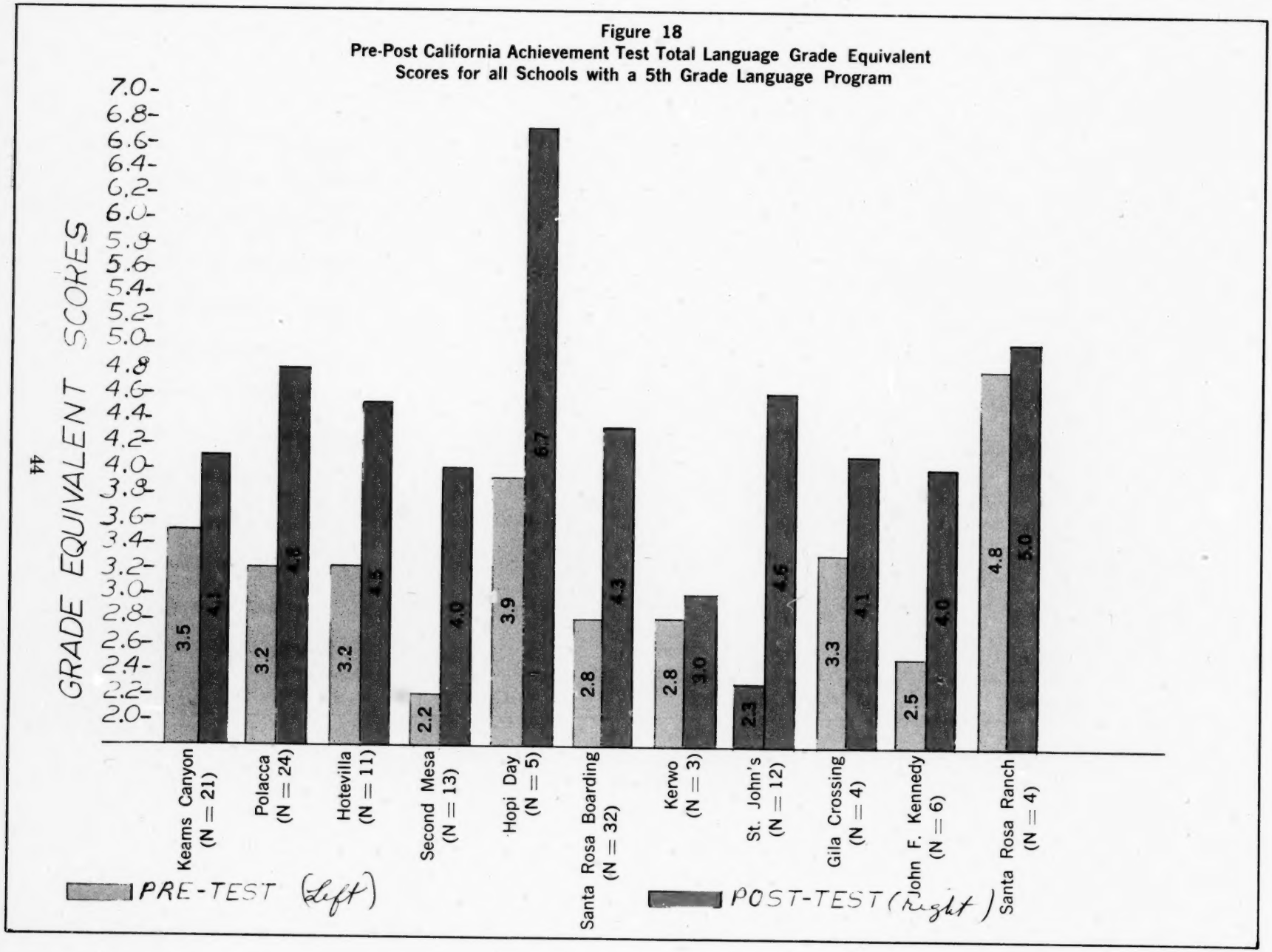


**Table 26**
**5th Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | .6 | .7 | - .1 |
| Polacca Day School | 1.6 | .6 | +1.0 |
| Hotevilla Day School | 1.3 | .6 | + .7 |
| Second Mesa Day School | 1.8 | .4 | +1.4 |
| Hopi Day School | 2.8 | .8 | +2.0 |
| Santa Rosa Boarding School | 1.5 | .6 | + .9 |
| Kerwo Day School | .2 | .6 | - .4 |
| St. John's Indian School | 2.3 | .5 | +1.8 |
| Gila Crossing Day School | .8 | .7 | + .1 |
| John F. Kennedy Day School | 1.5 | .5 | +1.0 |
| Santa Rosa Ranch | .2 | .2 | 0 |

**Figure 19**
**Pre-Post California Achievement Test Total Language Grade Equivalent Scores for all Schools with a 6th Grade Language Program**

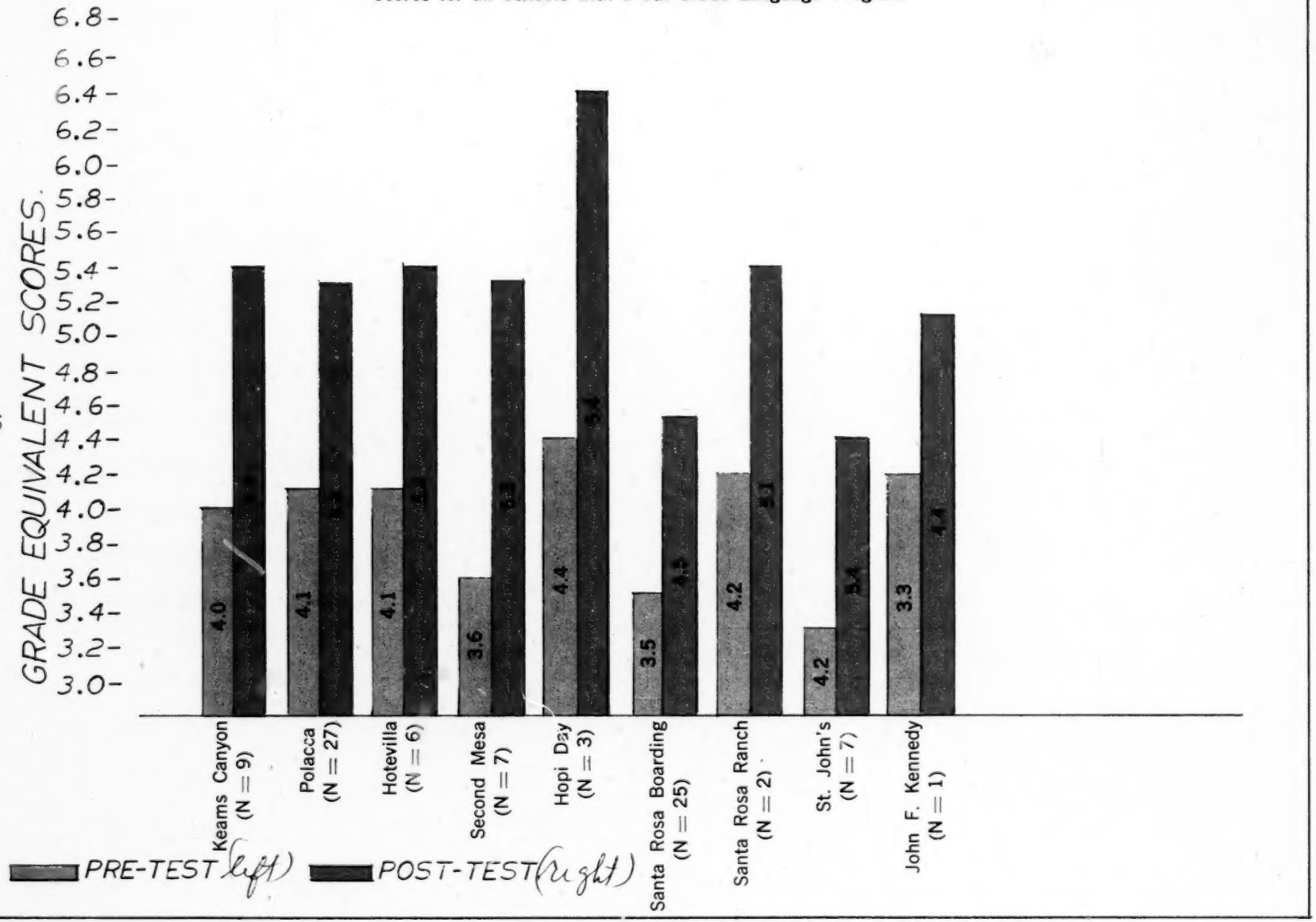


**Table 27**
**6th Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | 1.4 | .7 | + .7 |
| Polacca Day School | 1.2 | .7 | + .5 |
| Hotevilla Day School | 1.3 | .7 | + .6 |
| Second Mesa Day School | 1.7 | .6 | +1.1 |
| Hopi Day School | 2.0 | .7 | +1.3 |
| Santa Rosa Boarding School | 1.0 | .6 | + .4 |
| Santa Rosa Ranch | .9 | .7 | + .2 |
| St. John's Indian School | 1.2 | .7 | + .5 |
| John F. Kennedy Day School | 1.1 | .6 | + .5 |

Figure 20
Pre-Post California Achievement Test Total Language Grade Equivalent Scores for all Schools with a 7th Grade Language Program

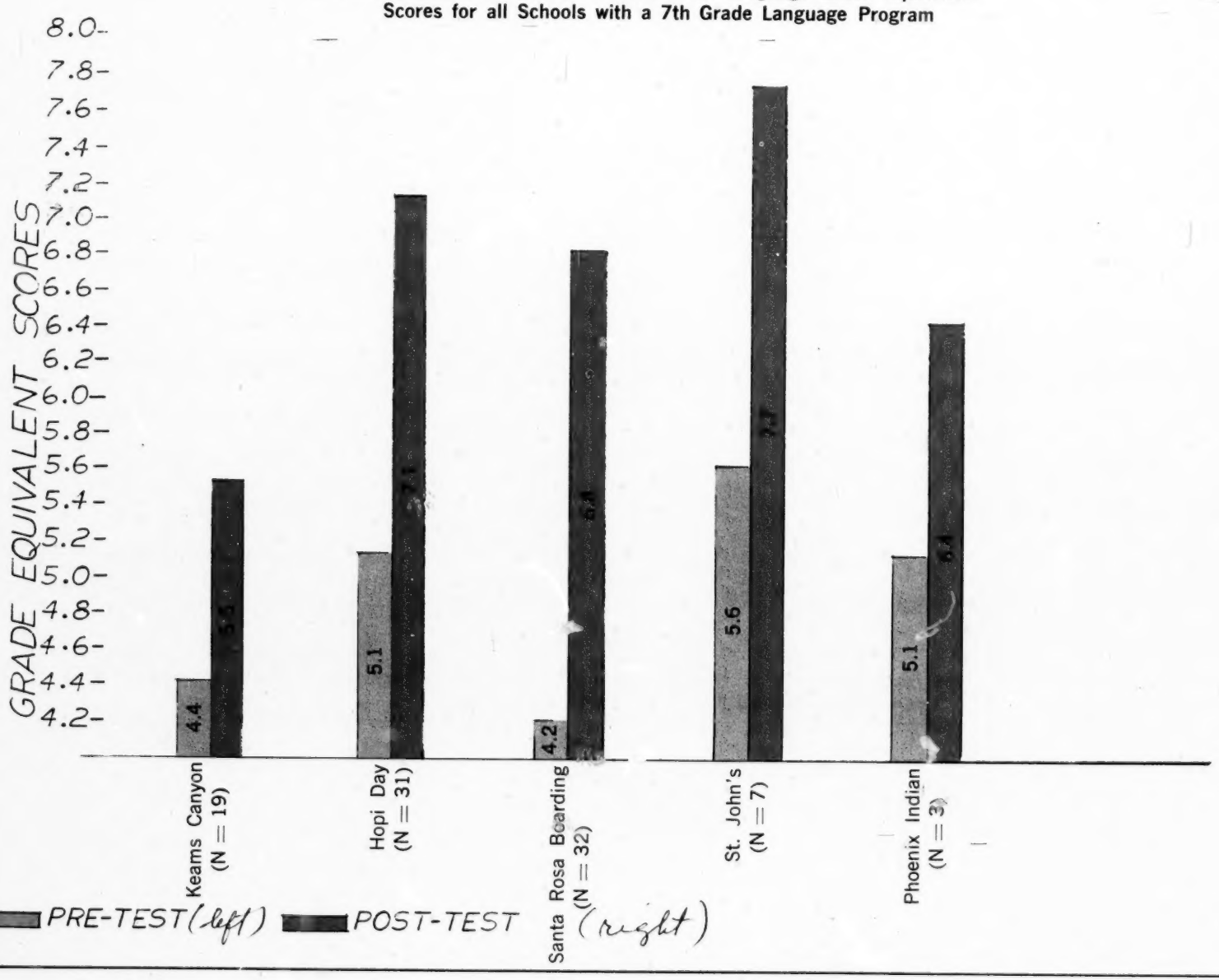


**Table 28**
**7th Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | 1.1 | .6 | + .5 |
| Hopi Day School | 2.0 | .7 | +1.3 |
| Santa Rosa Boarding School | 2.6 | .6 | +2.0 |
| St. John's Indian School | 2.1 | .8 | +1.3 |
| Phoenix Indian School | 1.3 | .7 | + .6 |

**Figure 21**
**Pre-Post California Achievement Test Total Language Grade Equivalent Scores for all Schools with an 8th or 9th Grade Language Program**

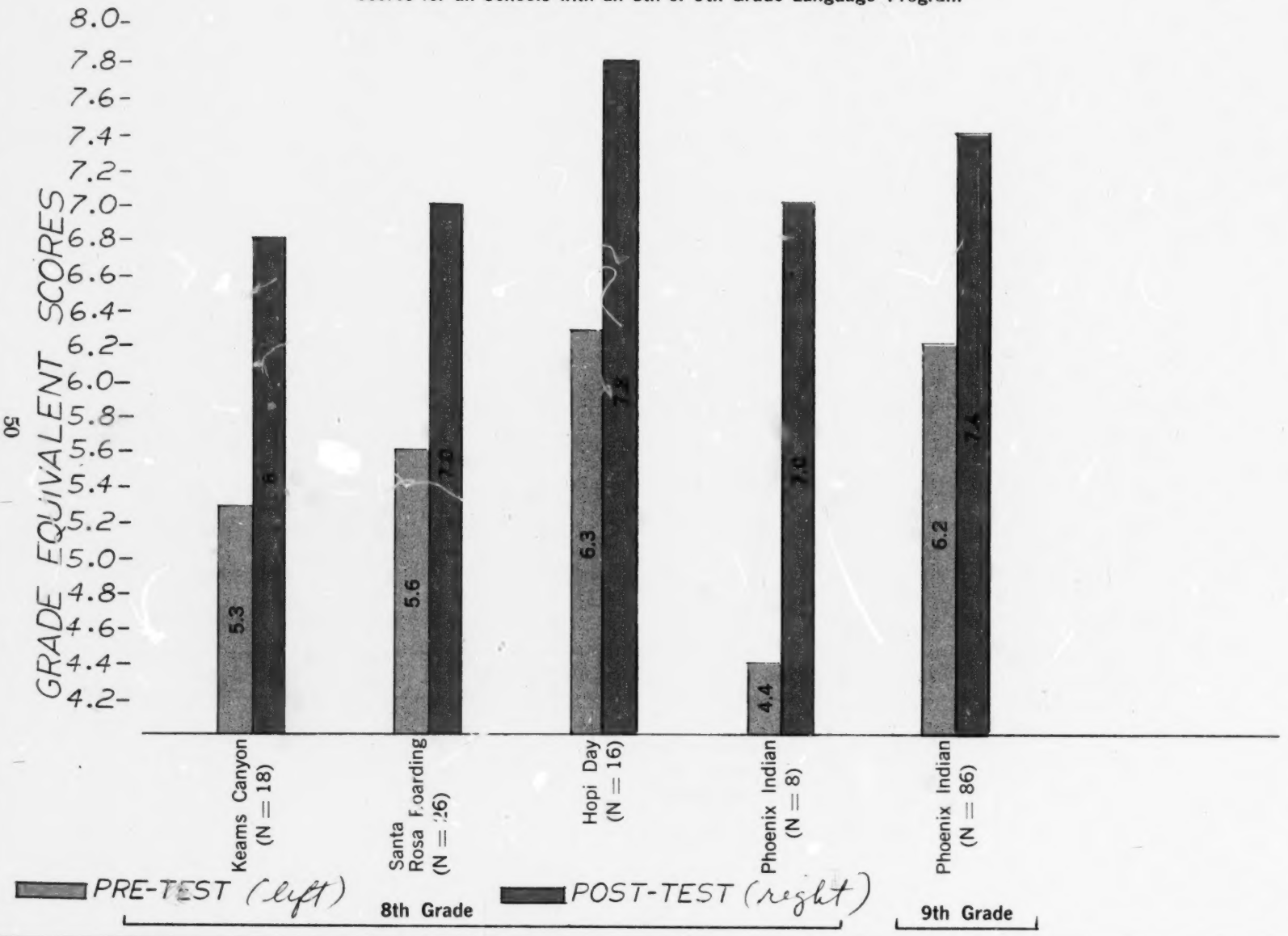


**Table 29**
**8th Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Keams Canyon Boarding Sch. | 1.5 | .7 | + .8 |
| Santa Rosa Boarding School | 1.4 | .7 | + .7 |
| Phoenix Indian School | 2.6 | .6 | +2.0 |
| Hopi Day School | 1.5 | .8 | + .7 |

**Table 30**
**9th Grade**
**Language Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Phoenix Indian School | 1.2 | .7 | + .5 |

Figure 22
Pre- Post California Achievement Test Total Math Grade Equivalent
Scores for all Schools with a 2nd Grade Math Program

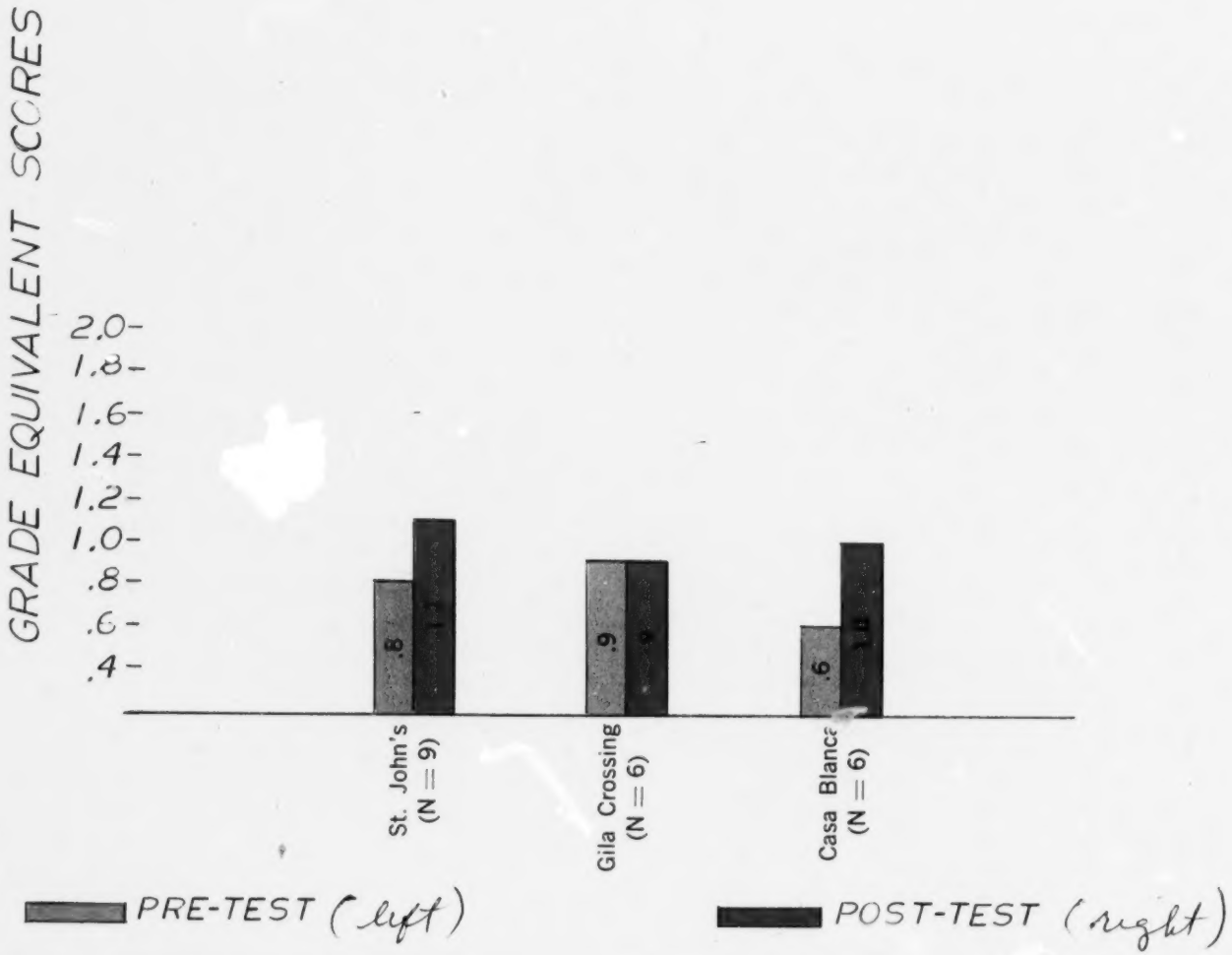


**Table 31**
**2nd Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Casa Blanca Day School | .4 | .4 | 0 |
| Gila Crossing Day School | 0 | .5 | – .5 |
| St. John's Indian School | .3 | .3 | 0 |

Figure 23
Pre- Post California Achievement Test Total Math Grade Equivalent Scores for all Schools with a 3rd Grade Math Program

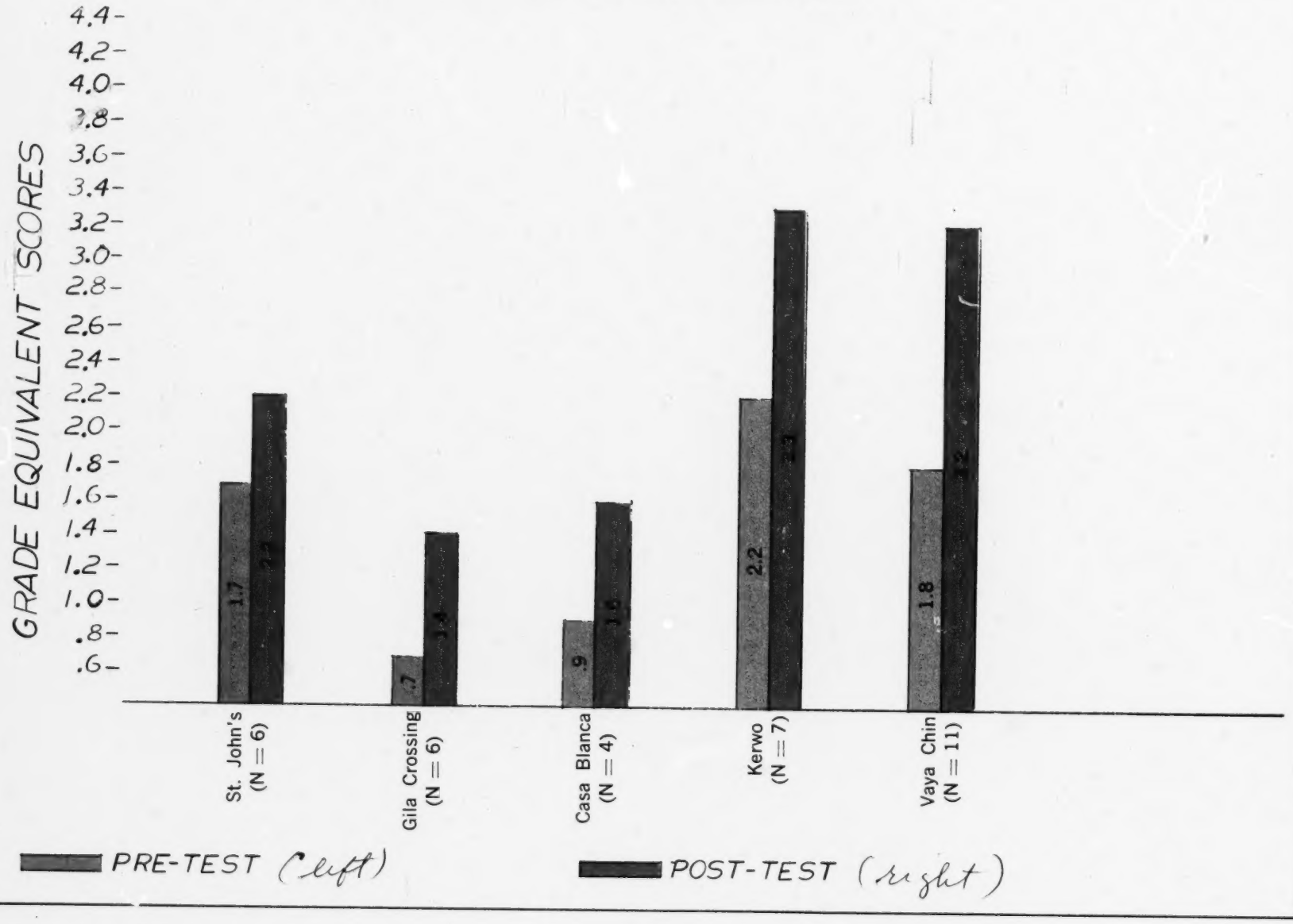


**Table 32**
**3rd Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | .5 | .6 | − .1 |
| Gila Crossing Day School | .7 | .2 | + .5 |
| Casa Blanca Day School | .7 | .3 | + .4 |
| Kerwo Day School | 1.1 | .7 | + .4 |
| Vaya Chin Day School | 1.4 | .6 | + .8 |

**Figure 24**
**Pre- Post California Achievement Test Total Math Grade Equivalent Scores for all Schools with a 4th Grade Math Program**

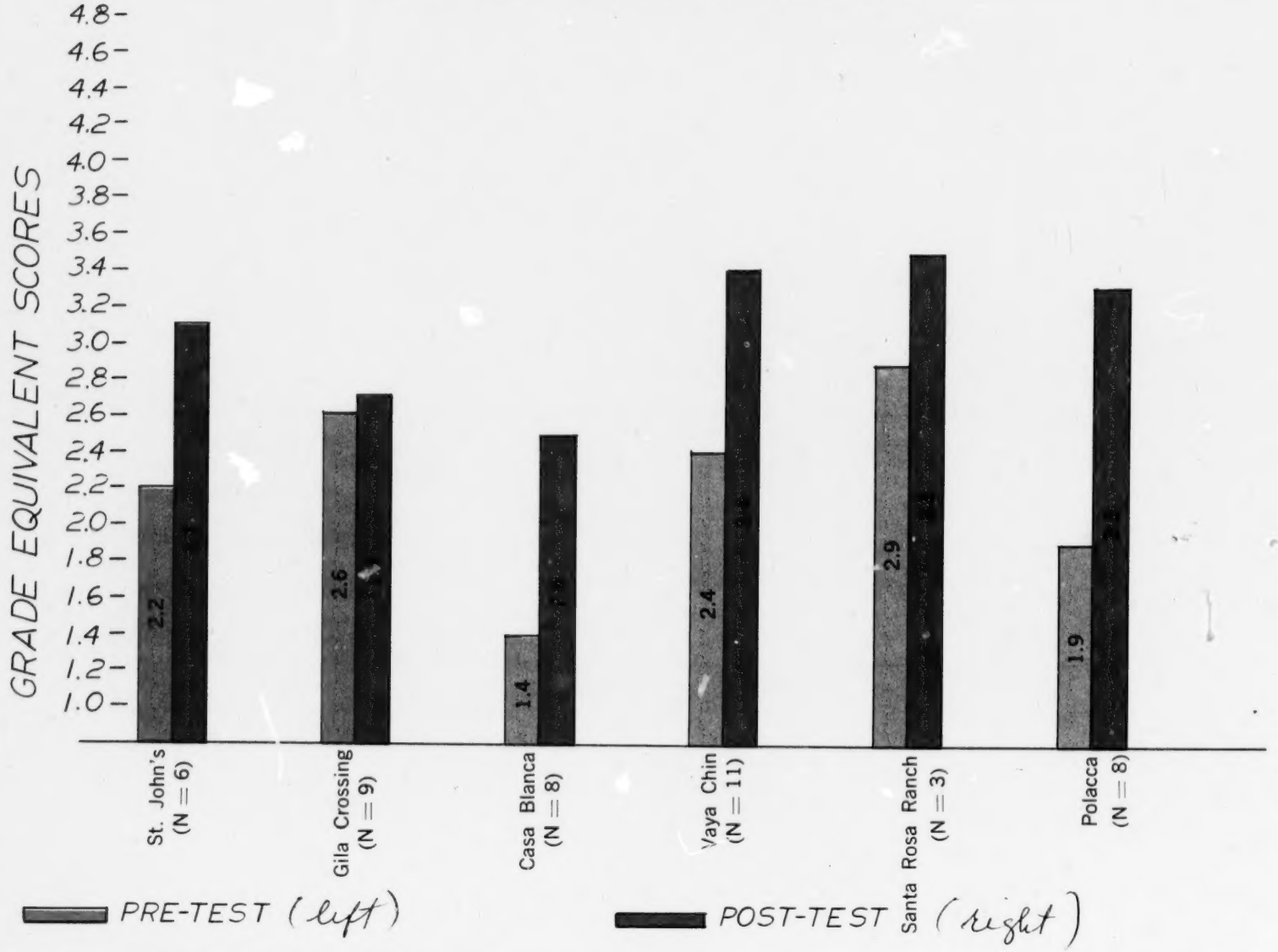


**Table 33**
**4th Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | .9 | .6 | + .3 |
| Gila Crossing Day School | .1 | .7 | - .6 |
| Casa Blanca Day School | 1.1 | .4 | + .7 |
| Vaya Chin Day School | 1.0 | .6 | + .4 |
| Santa Rosa Ranch | .6 | .7 | - .1 |
| Polacca Day School | 1.4 | .5 | + .9 |

**Figure 25**
**Pre- Post California Achievement Test Total Math Grade Equivalent Scores for all Schools with a 5th Grade Math Program**

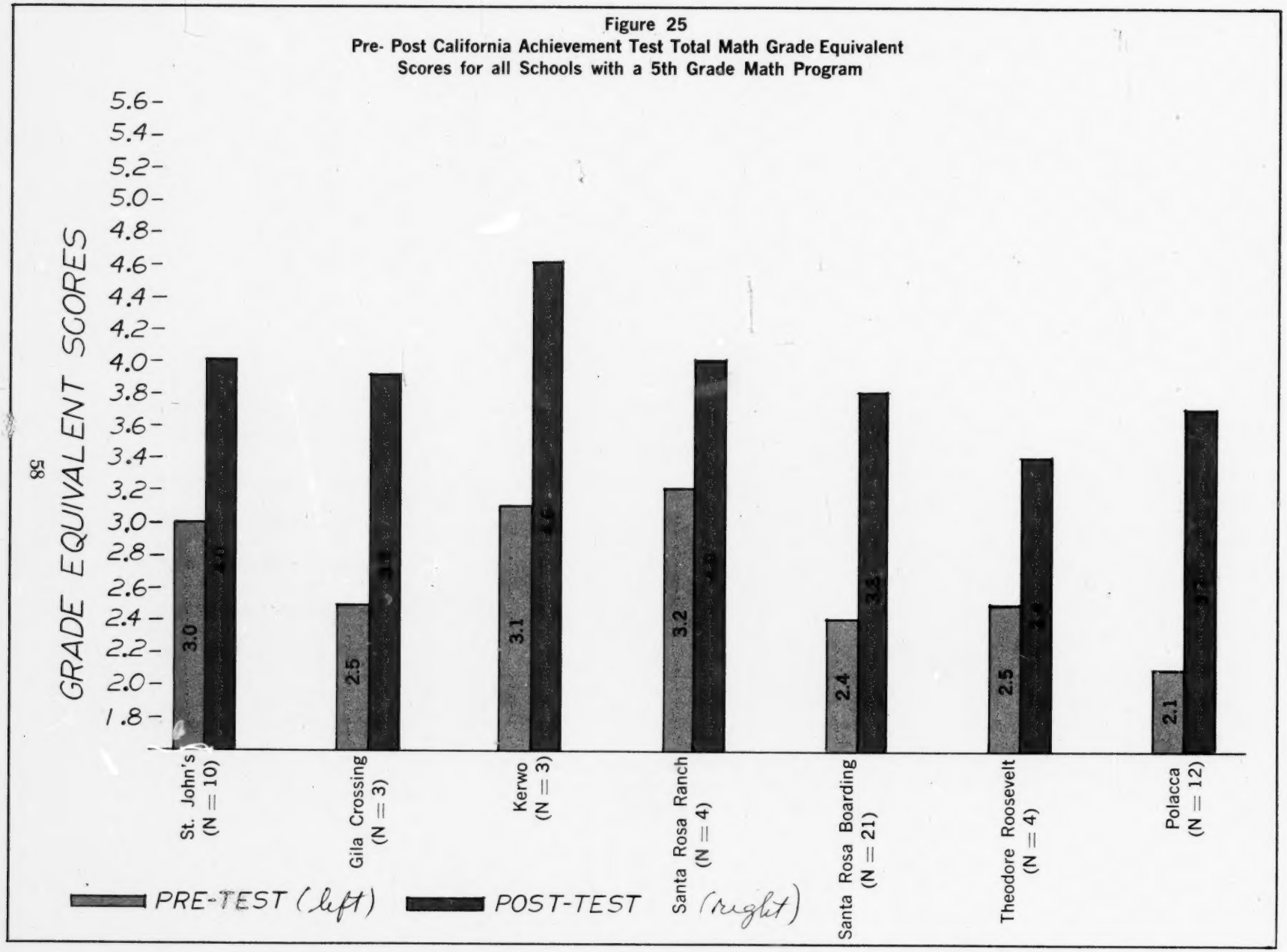


**Table 34**
**5th Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | 1.0 | .6 | + .4 |
| Gila Crossing Day School | 1.4 | .5 | + .9 |
| Kerwo Day School | 1.5 | .6 | + .9 |
| Santa Rosa Ranch | .8 | .6 | + .2 |
| Santa Rosa Boarding School | 1.4 | .5 | + .9 |
| Theodore Roosevelt | .9 | .5 | + .4 |
| Polacca Day School | 1.6 | .4 | +1.2 |

**Figure 26**
**Pre- Post California Achievement Test Total Math Grade Equivalent Scores for all Schools with a 6th Grade Math Program**

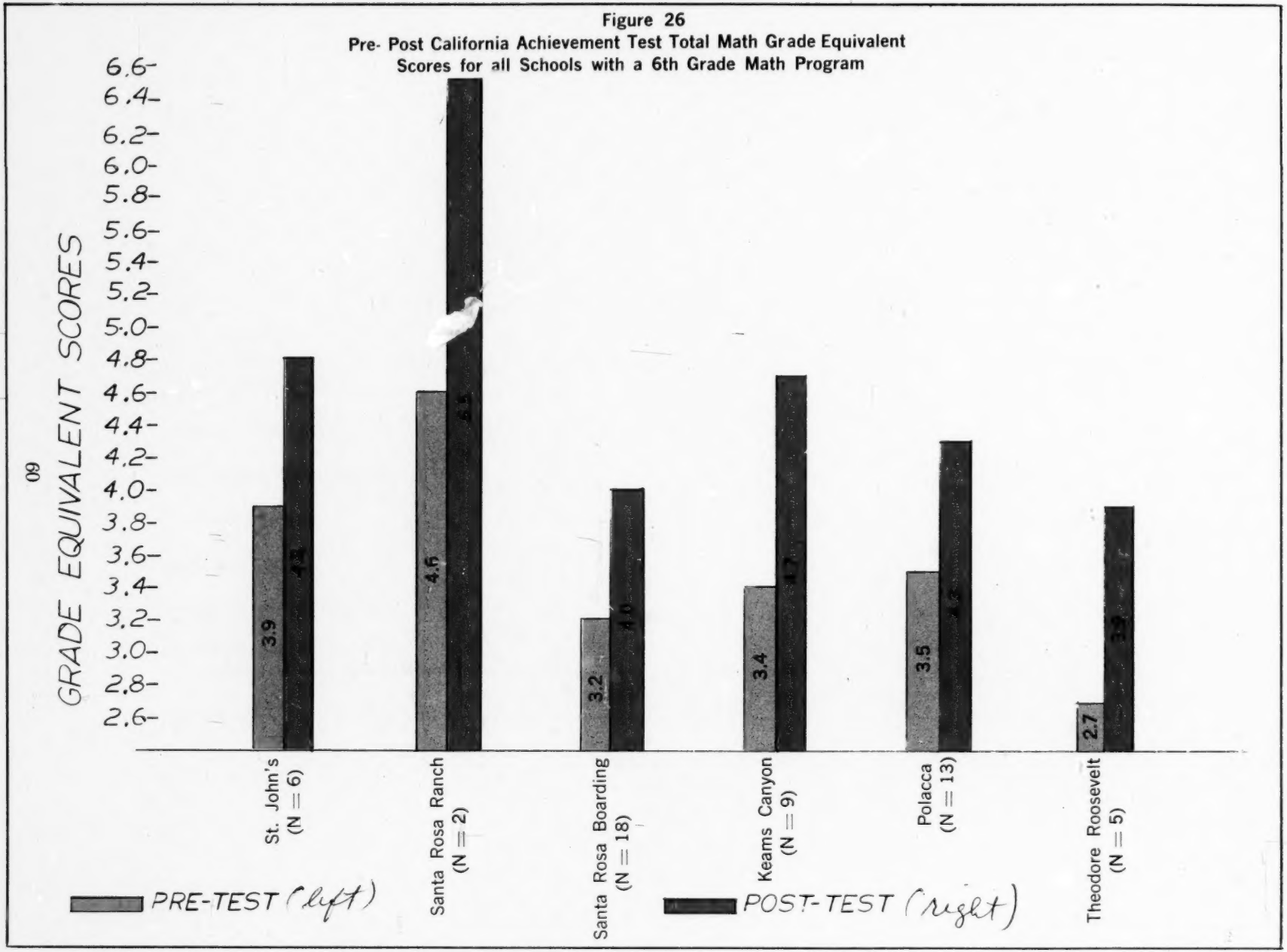


**Table 35**
**6th Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | .9 | .7 | + .2 |
| Santa Rosa Ranch | 1.9 | .8 | +1.1 |
| Santa Rosa Boarding School | .8 | .5 | + .3 |
| Keams Canyon Boarding Sch. | 1.3 | .6 | + .7 |
| Polacca Day School | .8 | .6 | + .2 |
| Theodore Roosevelt | 1.2 | .5 | + .7 |

**Figure 27**
**Pre- Post California Achievement Test Total Math Grade Equivalent Scores for all Schools with a 7th Grade Math Program**

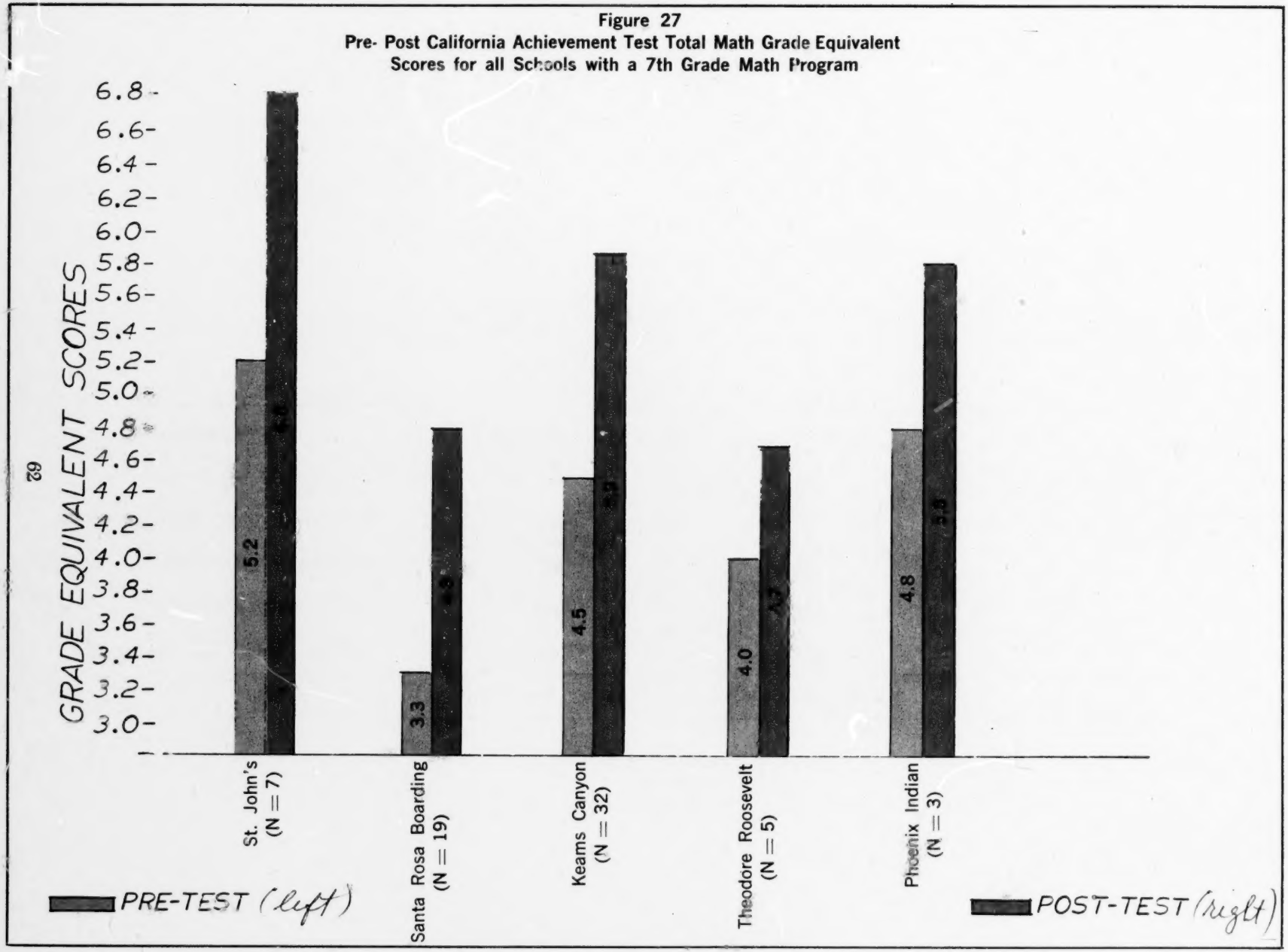


**Table 36**
**7th Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| St. John's Indian School | 1.6 | .7 | + .9 |
| Santa Rosa Boarding School | 1.5 | .5 | +1.0 |
| Keams Canyon Boarding | 1.4 | .6 | + .8 |
| Theodore Roosevelt | .7 | .6 | + .1 |
| Phoenix Indian School | 1.0 | .7 | + .3 |

**Figure 28**
**Pre- Post California Achievement Test Total Math Grade Equivalent Scores for all Schools with a 8th Grade Math Program**

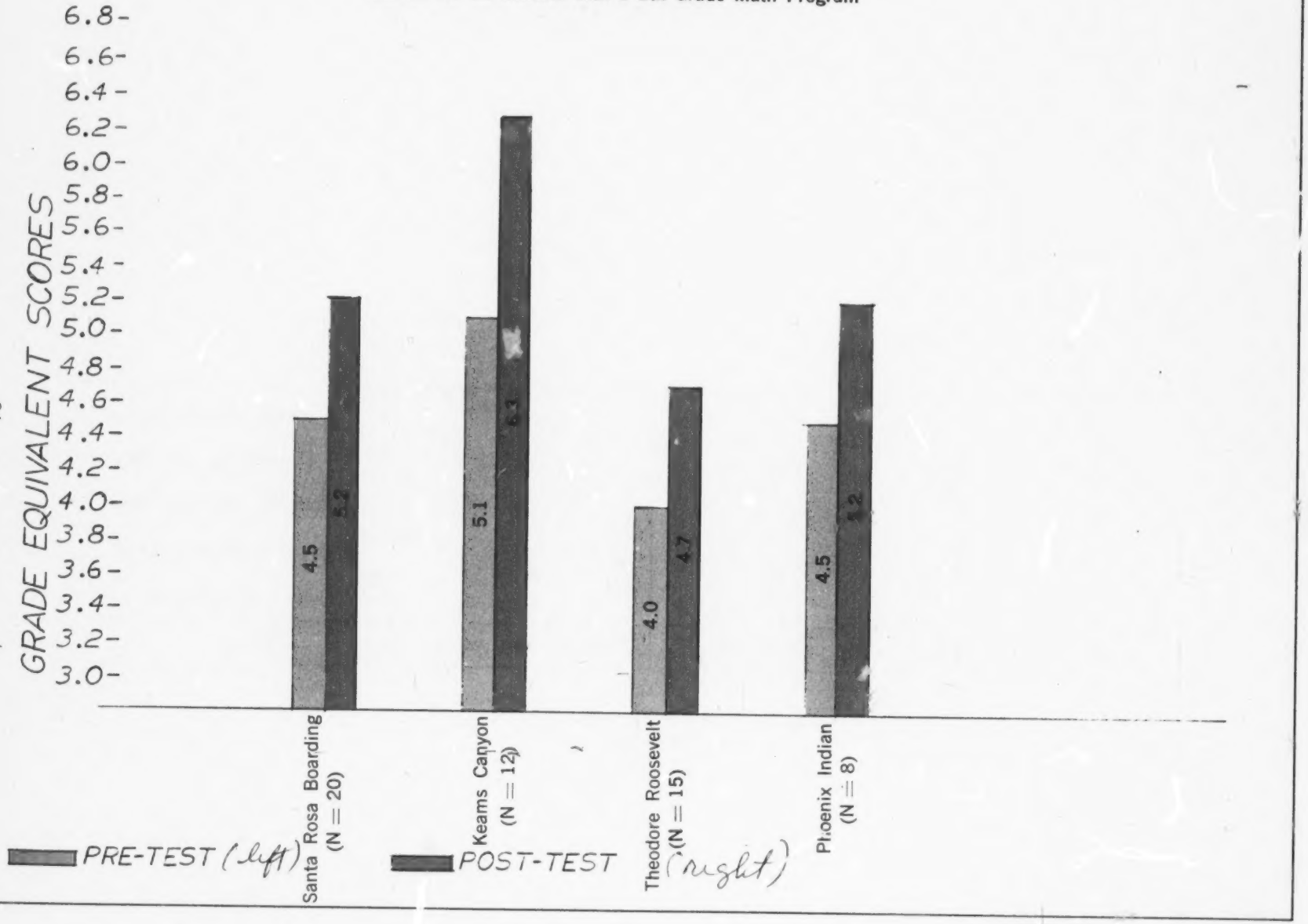


**Table 37**
**8th Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Santa Rosa Boarding School | .7 | .6 | + .1 |
| Keams Canyon Boarding | 1.2 | .6 | + .6 |
| Theodore Roosevelt | .7 | .5 | + .2 |
| Phoenix Indian School | .7 | .6 | + .1 |

Figure 29
Pre- Post California Achievement Test Total Math Grade Equivalent
Scores for all Schools with a 9th Grade Math Program

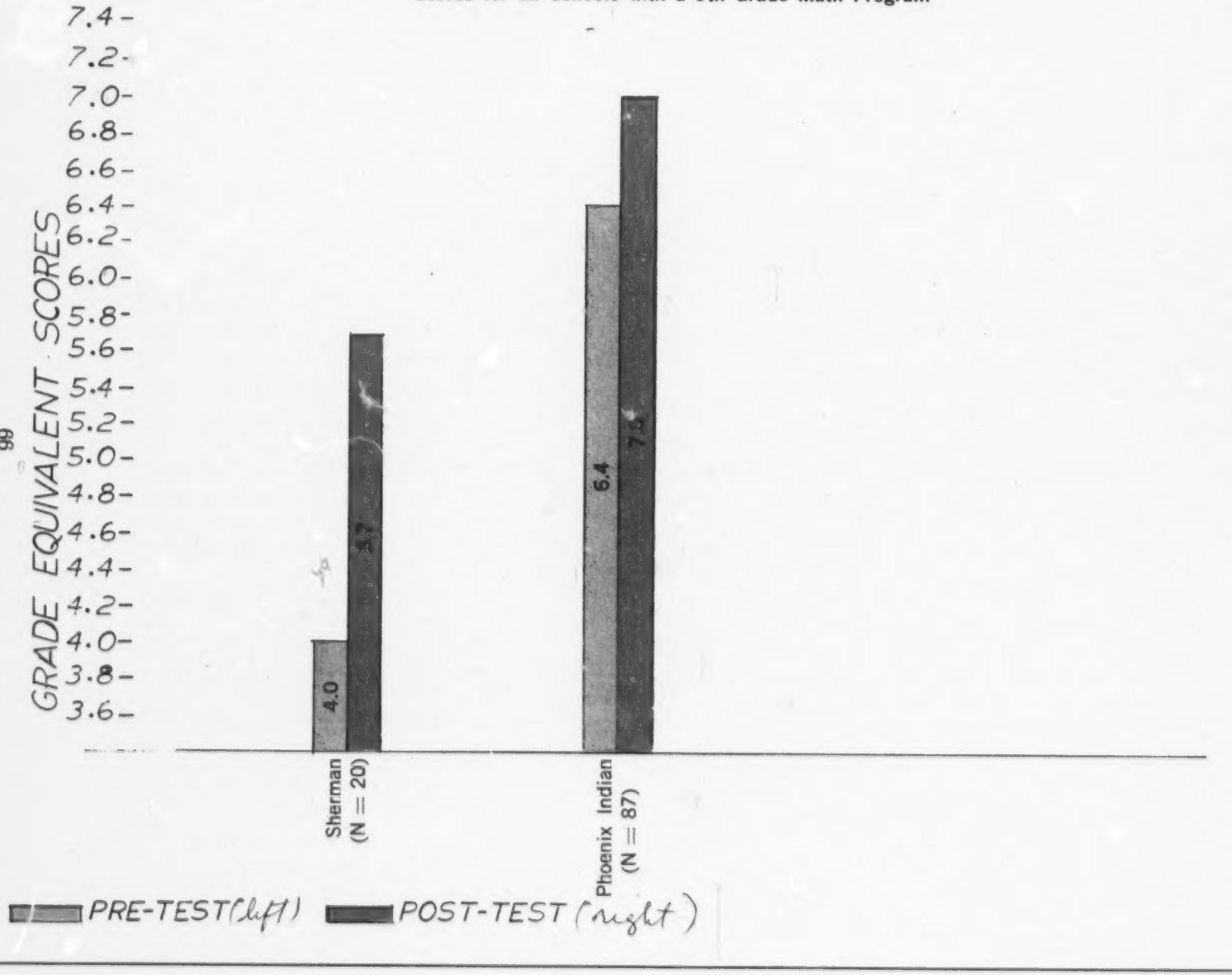


**Table 38**
**9th Grade**
**Math Component**

| School | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|
| Sherman Indian School | 1.7 | .4 | +1.3 |
| Phoenix Indian School | .6 | .7 | - .1 |

Figure 30
Pre- Post California Achievement Test Total Math Grade Equivalent Scores for Grades 10-12 at Sherman Indian High School

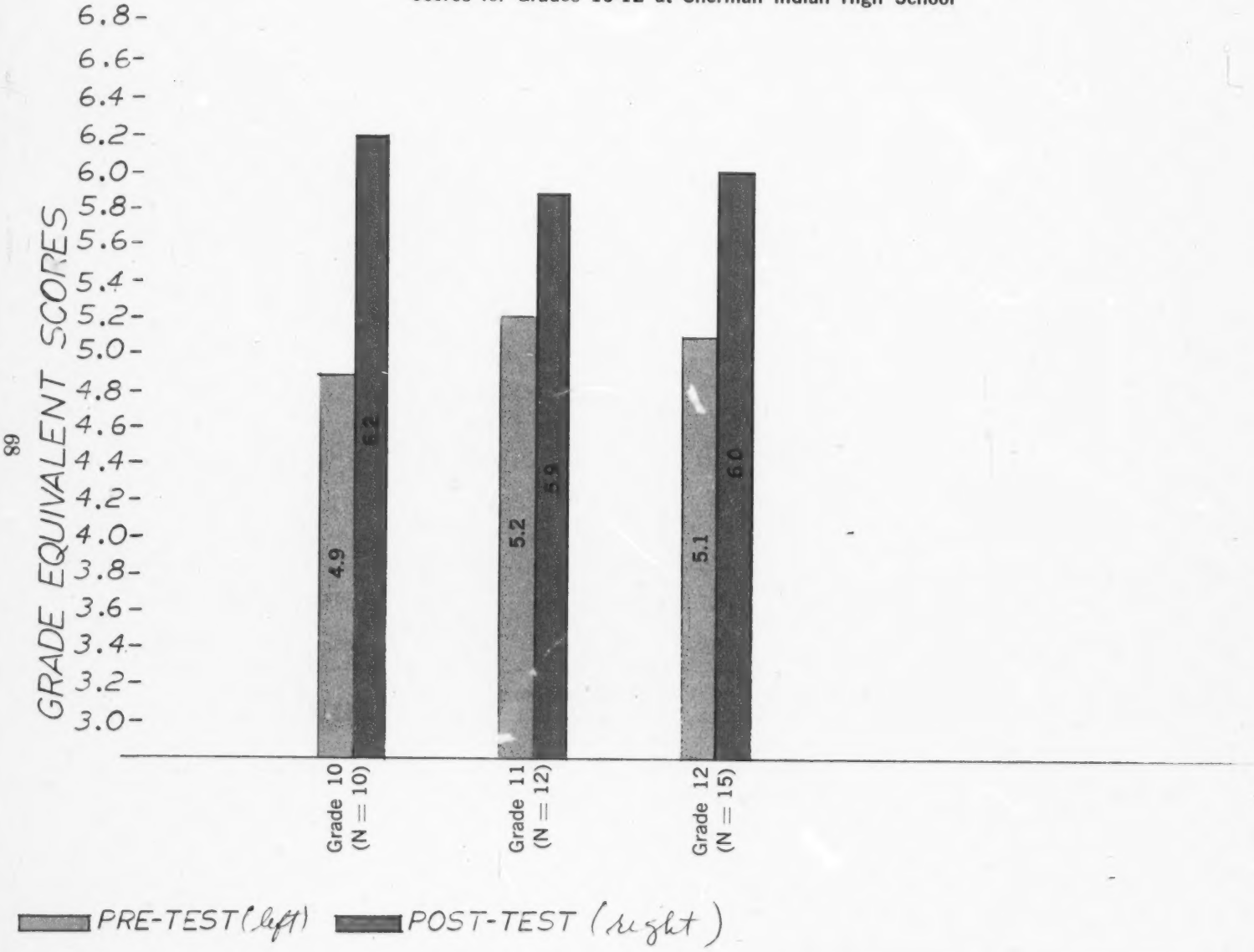


**Table 39**
**10th-12th Grade**
**Math Component**

| School | Grade | Actual Gain Scores | Expected Gain Scores | Difference |
|---|---|---|---|---|
| Sherman High School | 10 | 1.3 | .5 | + .8 |
| Sherman High School | 11 | .7 | .5 | + .2 |
| Sherman High School | 12 | .9 | .4 | + .5 |

**Table 40**

**California Achievement Test Total Battery Results for Students in Schools with a Special Education Component**

| School | Grade | N | Pretest | Postest | Actual Gain | Expected Gain | (Actual - Expected) |
|---|---|---|---|---|---|---|---|
| Casa Blanca | 2 | 5 | .6 | .9 | .3 | .3 | 0 |
| Casa Blanca | 3 | 4 | .8 | 1.6 | .8 | .3 | +.5 |
| Casa Blanca | 4 | 5 | 1.1 | 1.9 | .8 | .3 | +.5 |
| Phoenix Indian High | 7 | 2 | 4.6 | 5.5 | .9 | .7 | +.2 |
| Phoenix Indian High | 9 | 10 | 4.0 | 4.8 | .8 | .5 | +.3 |

**Table 41**

**AAHPER and Glover Physical Education Results in Percentiles for those Schools with a Physical Education Component**

| School | Grade | N | Pretest | Postest | Gain |
|---|---|---|---|---|---|
| Salt River | 1 | 19 | 31 | 81 | 50 |
| | 2 | 11 | 40 | 75 | 35 |
| | 3 | 11 | 38 | 73 | 35 |
| | 4 | 9 | 34 | 65 | 31 |
| | 5 | 22 | 28 | 46 | 18 |
| | 6 | 23 | 27 | 46 | 19 |
| | 7 | 15 | 29 | 44 | 15 |
| Keams Canyon | B | 9 | 12 | 56 | 44 |
| | 1 | 11 | 20 | 61 | 41 |
| | 2 | 10 | 24 | 50 | 26 |
| | 3 | 7 | 12 | 60 | 48 |
| Sherman | 9 | 31 | 36 | 52 | 16 |
| | 10 | 25 | 32 | 53 | 21 |
| | 11 | 19 | 36 | 58 | 22 |
| | 12 | 7 | 33 | 51 | 18 |

## Conclusions and Recommendations

The data presented in this report clearly show that except in a few isolated grades in some schools the Title I projects were tremendously successful in FY 1973. This is documented in the Phoenix Area consolidated schools report where students in every grade gained at or above the national average in reading and language. Except for students in grades 3 and 11 this was also true in mathematics.

### Reading

A number of schools, Keams Canyon, Hotevilla, Polacca, Second Mesa, Supai, and Stewart reported gain scores that met or exceeded the national average in every grade. Three schools, Santa Rosa Boarding grade 2, St. Johns grade 7, and Stewart grade 12 reported gains of 2 or more years.

In contrast, students did not gain at a satisfactory level at Gila Crossing Day School in grades 2-5, or at Kerwo in grades 3-4. In addition, there were several other schools that reported low gains in reading in one isolated grade whereas they reported large gains in other grades.

### Language

There were several schools in which the students met or exceeded the national average in every grade. These schools were John F. Kennedy, Hopi Day, Polacca, Second Mesa, and Santa Rosa Boarding School. In addition several schools had gain scores of double or more the national average; these were Hopi Day school grades 4-7, Santa Rosa Boarding school grades 3 and 7, and St. Johns Indian school in grades 5 and 7.

On the other hand, several schools reported unexpectedly low gains in language, Keams Canyon in grades 2 and 5, and Kerwo and Santa Rosa Ranch in grades 3-5. These schools had several grades in which the students either gained what was expected without Title I intervention or less.

### Mathematics

There were several schools, Keams Canyon, Polacca, Kerwo, and Vaya Chin, in which the students in every grade averaged gains at or above the national Average.

There were small gains in Casa Blanca and Gila Crossing schools in grades 2-3. These results were not entirely unexpected. The type of program offered in these schools in the early grades is a measurement based program that teaches mathematics concepts not measured by the California Achievement Test. Thus, the major benefits to be derived from the program will not become evident until grade 5 or where the students should reach the national average in mathematics.

### Special Education

The results in special education do not at first glance appear to be very substantial. However, this was the first year of operation for these programs and many logistical and technical problems in implementation were not solved until mid year. Even so, the actual gains in total achievement exceeded in every case the gains that would have occurred without Title I intervention.

## Physical Education

The results in physical education show that students in every grade at two schools had post test physical fitness scores at or above the 50th percentile. The two schools are Keams Canyon and Sherman. The lowest test average for any school was at the 44th percentile which is a substantial change from the pre tests scores.

## Recommendations

The data reported logically lead to two major recommendations: First, those schools showing low gains in reading and mathematics should critically evaluate what is occuring in their programs that is preventing their students from making gains equal to students in other Phoenix Area schools, and secondly, those Title I projects that are demonstrating consistent gains in every grade should attempt to have the regular program institute the activities throughout the school.

## DEFINITION OF TERMS

There are several terms used in the manuscript that might not immediately be clear without some clarification.

N = the number of students who took both the pre and post-test and thus comprise the total number of students included in the test results.

Expected Gain: For purposes of this report, expected gain refers to the gain in grade equivalent score that would be expected if the students did not receive Title I services. The value was computed by dividing the students pre-test score by the number of years in school +1. Thus a student beginning the second grade with a pre-test score of 1.6 would have an expected growth of .8 in grade equivalents. While it is recognized that this does not take into account the gain/loss factor over the summer it was the most accurate figure that could be derived given the limitations of the data.

Test Dates: Dates of administration of the pre-tests were the last 2 weeks in September and of the post-test were the first 2 weeks in May.